

**TRIBAL VOICES, TRIBAL WISDOM:  
STRATEGIES FOR THE CLIMATE CRISIS**

---

---

**HEARING**  
BEFORE THE  
**SELECT COMMITTEE ON THE  
CLIMATE CRISIS**  
**HOUSE OF REPRESENTATIVES**  
**ONE HUNDRED SEVENTEENTH CONGRESS**

FIRST SESSION

---

HEARING HELD  
NOVEMBER 18, 2021

---

**Serial No. 117-11**



[www.govinfo.gov](http://www.govinfo.gov)

Printed for the use of the Select Committee on the Climate Crisis

---

U.S. GOVERNMENT PUBLISHING OFFICE

46-891

WASHINGTON : 2022

SELECT COMMITTEE ON THE CLIMATE CRISIS

ONE HUNDRED SEVENTEENTH CONGRESS

KATHY CASTOR, Florida, *Chair*

SUZANNE BONAMICI, Oregon

JULIA BROWNLEY, California

JARED HUFFMAN, California

A. DONALD McEACHIN, Virginia

MIKE LEVIN, California

SEAN CASTEN, Illinois

JOE NEGUSE, Colorado

VERONICA ESCOBAR, Texas

GARRET GRAVES, Louisiana,

*Ranking Member*

GARY PALMER, Alabama

BUDDY CARTER, Georgia

CAROL MILLER, West Virginia

KELLY ARMSTRONG, North Dakota

DAN CRENSHAW, Texas

ANTHONY GONZALEZ, Ohio

---

ANA UNRUH COHEN, *Majority Staff Director*

MARTY HALL, *Minority Staff Director*

[climatecrisis.house.gov](http://climatecrisis.house.gov)

# CONTENTS

## STATEMENTS OF MEMBERS OF CONGRESS

	Page
Hon. Kathy Castor, a Representative in Congress from the State of Florida, and Chair, Select Committee on the Climate Crisis:	
Opening Statement .....	1
Prepared Statement .....	3
Hon. Garrett Graves, a Representative in Congress from the State of Louisiana, and Ranking Member, Select Committee on the Climate Crisis:	
Opening Statement .....	4
Hon. Sean Casten, a Representative in Congress from the State of Illinois, and Member, Select Committee on the Climate Crisis:	
Prepared Statement .....	5
Hon. Dan Crenshaw, a Representative in Congress from the State of Texas, and Member, Select Committee on the Climate Crisis:	
Prepared Statement .....	6

## WITNESSES

The Honorable Fawn Sharp, President, National Congress of American Indians; and Vice President, Quinault Indian Nation	
Oral Statement .....	8
Prepared Statement .....	10
The Honorable Melvin J. Baker, Chairman, Southern Ute Indian Tribe	
Oral Statement .....	14
Prepared Statement .....	16
Dr. Casey Thornbrugh, Climate Change Program Manager, United South and Eastern Tribes, Inc.; and Tribal Climate Science Liaison, DOI Northeast and Southeast Climate Adaptation Science Centers	
Oral Statement .....	18
Prepared Statement .....	19
Pilar Thomas, Partner, Energy, Environment & Natural Resources Practice Group, Quarles & Brady LLP	
Oral Statement .....	24
Prepared Statement .....	26

## SUBMISSIONS FOR THE RECORD

Press release from The Navajo Nation, "Navajo Nation Opposes Withdrawal for Development at Chaco Canyon, Tribal Consultation Ignored," submitted for the record by Mr. Graves .....	48
Article from NET Power, "NET Power Delivers Electricity to Grid in Major Technological Breakthrough," submitted for the record by Mr. Graves .....	48
C2ES topic summary on carbon capture technology, submitted for the record by Mr. Graves .....	48
Resolution from the National Congress of American Indians, "Amending and Updating NCAI Resolution #SD-15-024 and Supporting Tribal Disaster Resilience and Climate Change Principles," submitted for the record by Ms. Castor .....	49
Resolution from the National Congress of American Indians, "Additional Tribal Disaster Resilience and Climate Change Common Principles," submitted for the record by Ms. Castor .....	49
Report from the International Monetary Fund, <i>Still Not Getting Energy Prices Right: A Global and Country Update of Fossil Fuel Subsidies</i> , submitted for the record by Ms. Castor .....	49

IV

APPENDIX

	Page
Questions for the Record from Hon. Kathy Castor to Hon. Fawn Sharp .....	49
Questions for the Record from Hon. Garret Graves to Hon. Fawn Sharp .....	51
Questions for the Record from Hon. A. Donald McEachin to Hon. Melvin J. Baker .....	53
Questions for the Record from Hon. Garret Graves to Hon. Melvin J. Baker ....	54
Questions for the Record from Hon. Kathy Castor to Casey Thornbrugh .....	56
Questions for the Record from Hon. Garret Graves to Casey Thornbrugh .....	57
Questions for the Record from Hon. A. Donald McEachin to Casey Thornbrugh .....	57
Questions for the Record from Hon. Kathy Castor to Pilar Thomas .....	58

**TRIBAL VOICES, TRIBAL WISDOM:  
STRATEGIES FOR THE CLIMATE CRISIS**

**THURSDAY, NOVEMBER 18, 2021**

HOUSE OF REPRESENTATIVES,  
SELECT COMMITTEE ON THE CLIMATE CRISIS,  
*Washington, DC.*

The committee met, pursuant to call, at 9:30 a.m., in Room 210, Cannon House Office Building, Hon. Kathy Castor [chairwoman of the committee] presiding.

Present: Representatives Castor, Bonamici, Huffman, McEachin, Casten, Escobar, Graves, Palmer, Carter, and Crenshaw.

Ms. CASTOR. The committee will come to order. Welcome to the Select Committee on the Climate Crisis committee meeting this morning, “Tribal Voices, Tribal Wisdom: Strategies for the Climate Crisis.”

Without objection, the Chair is authorized to declare a recess of the committee at any time.

And, as a reminder, members participating in a hearing remotely should be visible on camera throughout the hearing. As with in-person meetings, members are responsible for controlling their own microphones. Members can be muted by staff only to avoid inadvertent background noise.

And I would like to remind members, per the guidance of the Attending Physician, members, staff, and all others physically present in an indoor U.S. House of Representatives space, including this hearing room, are required to wear masks, unless seeking or under recognition by the chair.

In addition, statements, documents, or motions must be submitted to the electronic repository at [SCCC.Repository@mail.house.gov](mailto:SCCC.Repository@mail.house.gov).

Finally, members or witnesses experiencing any technical problems should inform committee staff immediately.

Thank you all for joining this hybrid hearing. I will now recognize myself for an opening statement—if I can locate it.

A-ha. Okay.

Good morning again.

The original stewards of the land, indigenous peoples and communities, have a great deal to teach us about tackling climate change. While over the centuries Tribal nations have carried the painful scars of stolen land, forced removal, and genocide, they have also endured, survived, and proudly held on to sacred traditions, unique traditional ecological knowledge, and wisdom they inherited from their ancestors.

Today, during Native American Heritage Month, we will have an opportunity to listen to distinguished Tribal leaders and experts

from across Indian Country on how they are addressing the climate crisis, and we will discuss how Congress can partner with Tribal nations to create an equitable clean-energy future for all communities.

Tribal nations are on the front lines of the climate crisis. Extreme weather events are impacting sacred lands, burial sites, and cultural traditions. And the long-term risks of climate change, including sea level rise, extreme heat, and decreased precipitation, are threatening the health and livelihoods of millions of Native Americans.

As we work to solve the climate crisis, Congress has a responsibility to respect Tribal sovereignty and to help Tribal nations build resilience to climate impacts and to support their leadership in transitioning to a clean energy economy. We must partner on innovative solutions, drawing on the extensive ancestral knowledge and capabilities across Indian Country. And we must ensure Tribal voices have a seat at the table and that the Federal Government ensures free, prior, and informed consent as part of Tribal consultation informing Federal decisions.

Today, we have reason for optimism. This week, during a Tribal Nations Summit at the White House, President Biden announced a historic initiative to integrate Tribal knowledge into Federal decisionmaking. And, earlier this year, President Biden tapped our former House colleague, Deb Haaland, to lead the Interior Department, and she became the first Native American Cabinet Secretary in history. The President also has appointed more than 50 Native American leaders to positions throughout the administration and, last month, officially declared Indigenous Peoples' Day as a Federal holiday.

The Biden-Harris administration also has taken tangible steps to protect lands sacred to Tribes. In a short year, the administration has restored protections for Bears Ears and Grand Staircase-Escalante, protected Arctic waters and the Bering Sea, and suspended oil leases in the Arctic National Wildlife Refuge.

The President has also made a point of collaborating with Tribal nations on the "America the Beautiful" initiative, a voluntary nationwide effort to conserve 30 percent of our lands and waterways by 2030.

And, here in Congress, we are also making very important progress. On Monday, America cheered as President Biden signed the bipartisan Infrastructure Investment and Jobs Act, which will invest over \$13 billion in Tribal communities and indigenous peoples. This historic infrastructure law invests more than \$3 billion for Tribal transportation initiatives, and over \$2 billion for Tribal broadband and digital equity, and nearly \$1 billion for Tribal drinking water and clean water investments.

The bipartisan infrastructure law also will invest \$150 million in plugging, remediating, and restoring Tribal orphan well sites and \$130 million for Tribal community relocation projects.

But that is not all. This week, the excitement is building as we are poised to build on those investments with the Build Back Better Act, which includes a major investment to address health disparities in Tribal communities as well as in Tribal resilience and adaptation.

And, as you will hear from today's witnesses, these investments are critical right now. And I want to thank them all for being with us today, and I look forward to today's discussion.

And, at this time, I am happy to yield 5 minutes to the Ranking Member, Garret Graves of Louisiana.

Good morning, Garret.

[The statement of Ms. Castor follows:]

**Opening Statement of Chair Kathy Castor**

**Hearing on  
"Tribal Voices, Tribal Wisdom: Strategies for the Climate Crisis"**

**Select Committee on the Climate Crisis**

**November 18, 2021**

*As prepared for delivery*

The original stewards of the land, Indigenous people and communities, have a great deal to teach us about tackling climate change. While, over the centuries, Tribal Nations have carried the painful scars of stolen land, forced removal, and genocide, they've also endured, survived, and proudly held on to the sacred traditions, unique traditional ecological knowledge, and the wisdom they inherited from their ancestors. Today, during this Native American Heritage Month, we'll have an opportunity to listen to distinguished Tribal leaders and experts from across Indian Country on how they are addressing the climate crisis. And we'll discuss how Congress can partner with Tribal Nations to create an equitable clean energy future for all communities.

Tribal Nations are on the frontlines of the climate crisis. Extreme weather events are impacting sacred lands, burial sites, and cultural traditions. And the long-term risks of climate change—including sea-level rise, extreme heat, and decreased precipitation—are threatening the health and livelihoods of millions of Native Americans.

As we work on solving the climate crisis, Congress has a responsibility to respect Tribal sovereignty, to help Tribal Nations build resilience to climate impacts, and to support their leadership in transitioning to a clean energy economy. We must partner on innovative solutions, drawing on the extensive ancestral knowledge and capabilities across Indian Country. And we must ensure Tribal voices have a seat at the table and that the federal government ensures Free, Prior and Informed Consent as part of tribal consultation informing federal decisions. Today, we have reason for optimism. This week, during a Tribal Nations Summit at the White House, President Biden announced a historic initiative to integrate Tribal knowledge into federal decision-making.

And earlier this year, President Biden tapped our former House colleague, Deb Haaland, to lead the Interior Department, and she became the first Native American cabinet secretary in history. The President also has appointed more than 50 Native American leaders to positions throughout the Administration, and last month officially declared Indigenous Peoples Day as a federal holiday.

The Biden-Harris Administration also has taken tangible steps to protect lands sacred to Tribes. In a short year, the Administration has restored protections for Bears Ears and Grand Staircase-Escalante; protected Arctic waters and the Bering Sea; and suspended oil leases in the Arctic National Wildlife Refuge. The President has also made a point of collaborating with Tribal Nations on the America the Beautiful Initiative—a voluntary, nationwide effort to conserve 30 percent of our lands and waters by 2030.

Here in Congress, we are also making important progress. On Monday, America cheered as President Biden signed the bipartisan Infrastructure Investment and Jobs Act, which will invest over \$13 billion dollars in Tribal communities and Indigenous people. This historic infrastructure law invests more than \$3 billion dollars for tribal transportation programs; over \$2 billion dollars for tribal broadband and digital equity investments; and nearly \$1 billion dollars for tribal drinking water and clean water investments. The Bipartisan Infrastructure Law also will invest \$150 million dollars in plugging, remediating, and restoring tribal orphaned well sites; and \$130 million dollars for tribal community relocation projects.

But that's not all. This week the excitement is building as we're poised to build on those investments with the Build Back Better Act, which includes a major invest-

ment to address health disparities in tribal communities, as well as in tribal resilience and adaptation.

As you'll hear from today's witnesses, these investments are critical right now. I want to thank them all for being with us today. And I look forward to today's discussion.

Mr. GRAVES. Hey, good morning, Madam Chair. Thank you for holding this hearing.

And I want to thank everybody for joining us today.

You know, the United States is—we are leading the world in reducing emissions and doing it in an affordable way, benefiting our Tribal communities, benefiting Americans across the entire nation, across all of our states and our territories.

As we move forward, we have got to deploy solutions that are globally deployable. That means that they are both reliable and that they are affordable. And we are going to hear today on the important role that Tribes are playing in ensuring that we can achieve just that.

But something that is also really important is how we make decisions in the United States using our abundant resources. All of our energy and our climate policies must be based on our assets and resources right here in the United States, and the same is true for the Tribes. The Tribes are kind of like a microcosm of what is possible, looking at the assets, the resources they have, whether it is wind, solar, whether it is geothermal, maybe wave energy. That could include even things like fossil fuels, if those are the resources that they have.

And it is important that, as we move forward, we learn from both the successes and the failures of others. I just got back from Europe, like Madam Chair did. And we are not Europe, and, thankfully, we are not pursuing, at least right now, all of their strategies, although I am hearing more and more about how we need to move in that direction.

It is crystal clear to me that that direction is not one that, one, complies with or recognizes the assets and resources in the United States. Number two, it fails to meet the reliability test. Number three, it fails to meet the affordability test.

And, as I have mentioned in this committee before, look no further than the State of California as to how to not pursue clean energy strategies—higher emissions, higher prices, most dependent state upon foreign energy.

One of the Tribes that we are going to hear from today is the Southern Ute Tribe, who are on the forefront of the clean energy revolution. The next wave of energy innovation that they are pursuing will deliver on this promise of an American-based resource but also one that is carbon-free and, in fact, at utility scale.

Among all of the advancements that they are developing is a utility-scale project to utilize their own natural gas resources, combined with cutting-edge innovation, to generate affordable electricity with zero emissions on demand. This is baseload power.

In fact, the company NET Power just announced yesterday that they delivered to the grid, for the first time anywhere, zero emissions baseload electricity utilizing natural gas. This is something that is a global game changer that everyone here should be thrilled about, and I am shocked that I haven't heard any of my colleagues make mention of this.

Let me say it again: American resources, natural gas—right there, Tribal resources, natural gas, zero emissions, affordable electricity, baseload power put onto the grid. If you are to believe the science and just about every credible analysis, then this announcement yesterday is a seismic shift in advancing the technology essential to achieving meaningful global action to reduce emissions.

Madam Chair, I heard you talk a lot in your opening about listening to Tribes and making sure that there is Tribal consent, and I agree with you. I think that is really important when we move forward, that we do look at the Tribes like a microcosm of opportunity and ensure that the Tribes, like the Southern Ute in this case, that we are listening to them and how we can not—as many people have failed on their strategy—not look at the source of energy as the enemy but recognize it is actually the emissions.

And the Southern Ute Tribe’s project is a perfect example of how we can deliver reliable, affordable, emissions-free energy that can ultimately be exported around the world, rather than the strategies that we have seen recently, where our administration is asking Russia, Saudi Arabia, Iran, Venezuela, Nigeria, and other countries to basically produce energy.

Lastly, Madam Chair, I think it is important to note, just yesterday, the lease sale that the courts forced the Biden administration to pursue ended up providing nearly \$200 million to the Treasury, just from the lease sale. That is not from the production.

And that is important, Madam Chair, because, in a hearing this week, they told us onshore renewable energy production only produced \$40 million for the United States, whereas offshore in recent years has produced \$10 billion. If we are going to fund important BIA efforts, important environmental protection, important health-care, education, infrastructure, and others, we have got to have the resources to do it.

So I look forward to hearing from our witnesses and yield back.

**Statement for the Record**  
**The Honorable Sean Casten**  
**Hearing on**  
**“Tribal Voices, Tribal Wisdom: Strategies for the Climate Crisis”**  
**Select Committee on the Climate Crisis**  
**November 18, 2021**

Fossil-fuel subsidies continue to be a primary reason for why the timeline of shifting to renewable energy sources faces further delay. Whereas ideally we would have a level playing field for cheaper renewable energy technologies to gain market share, the long sustaining subsidization of fossil fuels has set the country backwards for the past several decades.

The International Monetary Fund (IMF) calculated in 2020 that total subsidies equaled \$5.9 trillion, or almost 7% of global gross domestic product.<sup>1</sup> This analysis rightfully takes into account the hidden costs of fossil fuels, including their impacts on air pollution and global warming, as polluters do not pay for the damage they cause to society.

<sup>1</sup>Parry, I., Black, S. & Vernon, N. *Still Not Getting Energy Prices Right: A Global and Country Update of Fossil Fuel Subsidies*. IMF Working Paper WP/21/236 (International Monetary Fund, 2021).

Even if one prefers not to consider these life-or-death externalities, the International Economic Association and the Organization for Economic Co-operation and Development (OECD) estimated that 52 advanced and emerging economies, representing nearly 90% of global fossil fuel subsidies, pour more than half a trillion dollars yearly into artificially lowering the price of fossil fuels. This is more than triple what renewables receive.<sup>2</sup>

Importantly, action can be taken to reverse these trends. The International Institute for Sustainable Development (IISD) found in 2020 that removing consumption subsidies in 32 countries would cut their greenhouse-gas emissions by an average of 6% by 2025.<sup>3</sup> This is in line with a 2018 United Nations report suggesting that phasing out fossil-fuel support could reduce global emissions by between 1% and 11% from 2020 to 2030.<sup>4</sup> That reduction could be amplified if the money that would have subsidized fossil fuels was instead used to support renewable energy.

Some Members on the Republican side of the aisle falsely claim renewables receive more government assistance than fossil fuels. A 2011 CRS Report found that between 1968–2010 estimated revenue losses associated with tax incentives for the oil and gas sector sum to \$193.4 billion. Meanwhile, data for tax incentives for renewable energy first introduced in the late 70s has an estimated cumulative cost of \$24.6 billion. Even in the most recent decade, annual tax expenditures do not surpass \$7B.<sup>5</sup>

Lastly, a 2020 report by the International Renewable Energy Agency (IRENA) tracked some \$634 billion in energy-sector subsidies in 2020, and found that around 70% went to fossil fuels. Only 20% went to renewable power generation, 6% to biofuels and just over 3% to nuclear. The report concluded, “This overwhelming imbalance of subsidies between fossil fuels and clean energy is a drag on us achieving the Paris climate goals.”<sup>6</sup> As evidenced by the CRS report, this same imbalance has persisted over the past two decades, even before renewable energy technologies started to become more viable.

Without changes to this significant subsidy imbalance, oil and gas expansion will continue to wreak havoc on our climate and further delay our ability to achieve decarbonization goals.

**Statement for the Record**  
**The Honorable Dan Crenshaw**  
**Hearing on**  
**“Tribal Voices, Tribal Wisdom: Strategies for the Climate Crisis”**  
**Select Committee on the Climate Crisis**  
**November 18, 2021**

During the Select Committee on the Climate Crisis hearing on “Tribal Voices, Tribal Wisdom: Strategies for the Climate Crisis”, many of my Democratic colleagues reiterated the oft-repeated claim that fossil fuels get inordinate amounts of federal subsidies. Backing up this claim, my colleagues used a report from IMF, entitled, “Still Not Getting Energy Prices Right: A Global and Country Update of Fossil Fuel Subsidies.”

During my time in Congress, “subsidy” has generally been defined as a sum of money transferred by the government to assist an industry or business. The term is so broad that it includes tax exemptions or deductions, grants, loans, and other fiduciary devices.

However, “subsidy” has never been defined so broadly as to include indirect or correlational environmental costs and global warming costs. But this is the definition that the IMF used to calculate global fossil fuel subsidies at a whopping \$5.9 trillion in 2020 or about 6.8 percent of GDP and are expected to rise to 7.4 percent of GDP in 2025. And, by extension, this is the definition that my Democratic colleagues used to mischaracterize the subsidies that fossil fuels receive.

<sup>2</sup> See: <https://www.oecd.org/g20/topics/climate-sustainability-and-energy/OECD-IEA-G20-Fossil-Fuel-Subsidies-Reform-Update-2021.pdf>.

<sup>3</sup> Geddes, A. *et al. Doubling Back and Doubling Down: G20 Scorecard on Fossil Fuel Funding* (International Institute for Sustainable Development, 2020).

<sup>4</sup> UN Environment Programme. *Emissions Gap Report 2018* (UN, 2018).

<sup>5</sup> CRS Report R41227, Energy Tax Policy: Historical Perspectives on and Current Status of Energy Tax Expenditures.

<sup>6</sup> Taylor, M. *Energy Subsidies: Evolution in the Global Energy Transformation to 2050* (International Renewable Energy Agency, 2020).

Instead, I would like to direct my colleagues to Congressional Research Service's calculation of tax preferences and subsidies in the energy industry.<sup>1</sup>

**Table 3. Comparing Energy Production and Energy Tax Incentives: Fossil Fuels and Renewables: 2017**

	Production		Tax Incentives	
	Quadrillion Btu	% of Total	Billions of Dollars	% of Total
Fossil Fuels	68.5	77.7%	\$4.6	25.8%
Renewables <sup>a</sup>	11.2	12.8%	\$11.6	65.2%
Renewables: Alternative Subcategories				
Renewables, Excluding Hydroelectric <sup>b</sup>	8.4	9.7%	\$11.6	65.2%
Renewables, Excluding Biofuels	9.0	10.1%	\$9.5	53.4%
Renewables, Excluding Hydroelectric and Biofuels	6.2	7.0%	\$9.5	53.4%
Nuclear	8.4	9.5%	\$0.3	1.7%

**Source:** Calculated using data presented in **Table 1** and **Table 2** above.

**Note:** Tax incentive shares do not sum to 100% as some incentives are for efficiency or alternative technology vehicles.

- a. Renewables tax incentives include targeted tax incentives designed to support renewable electricity and renewable fuels.
- b. The value of total tax incentives for renewables excluding hydroelectric power is less than the total value of tax incentives when those available for hydropower are included. However, the difference is small. JCT estimates that in 2017, the tax expenditures for qualified hydropower under the PTC are less than \$50 million.

I applaud my colleagues for their concern over the direction of scarce federal resources. However, it may be a better question to ask—should we be subsidizing the renewable energy industry to the tune of \$11B a year, for them to produce such a small share of the nation's energy?

Ms. CASTOR. Now I want to welcome our witnesses.

We will hear from experts on Tribal perspectives on climate change, the transition to the clean energy economy, and adaptation to climate impacts.

First, the Honorable Fawn Sharp is the President of the National Congress of American Indians and Vice President of the Quinault Indian Nation, a community of 2,500 in Taholah, Washington. She is the 23rd President of the NCAI, the oldest and largest American Indian and Alaska Native Tribal government organization in the country.

The Honorable Melvin J. Baker is the Chairman of the Southern Ute Indian Tribe. He previously served on the Southern Ute Tribal Council, the Colorado Commission of Indian Affairs, and the Southern Ute Indian Housing Authority.

Dr. Casey Thornbrugh is the Climate Change Program Manager in the Office of Environmental Resource Management for the United South and Eastern Tribes. He also serves as a Tribal Climate Science Liaison for the Department of Interior Northeast and Southeast Climate Adaptation Science Centers. Dr. Thornbrugh is a citizen of the Mashpee Wampanoag Tribe.

And Pilar Thomas is a Partner in the Energy, Environment, and Natural Resources Practice Group of the law firm Quarles &

<sup>1</sup> <https://sgp.fas.org/crs/misc/R44852.pdf>.

Brady, LLP. She previously served as the Deputy Director of the Office of Indian Energy and Policy Programs at the U.S. Department of Energy and as the Deputy Solicitor of Indian Affairs at the U.S. Department of the Interior. Ms. Thomas also served as the Interim Attorney General and Chief of Staff to Chairwoman Herminia Frias of the Pascalyaki Tribe, where she is a member.

Without objection, the witnesses' written statements will be made part of the record.

And, with that, President Sharp, welcome. You are now recognized for 5 minutes to give a presentation of your testimony.

**STATEMENTS OF THE HON. FAWN SHARP, PRESIDENT OF THE NATIONAL CONGRESS OF AMERICAN INDIANS (NCAI) AND VICE PRESIDENT OF THE QUINAULT INDIAN NATION; THE HON. MELVIN J. BAKER, CHAIRMAN, SOUTHERN UTE INDIAN TRIBE; DR. CASEY THORNBRUGH, CLIMATE CHANGE PROGRAM MANAGER, OFFICE OF ENVIRONMENTAL RESOURCE MANAGEMENT, UNITED SOUTH AND EASTERN TRIBES, INC., AND TRIBAL CLIMATE SCIENCE LIAISON, DOI NORTHEAST AND SOUTHEAST CLIMATE ADAPTATION SCIENCE CENTERS; AND PILAR THOMAS, PARTNER, ENERGY, ENVIRONMENT, AND NATURAL RESOURCES PRACTICE GROUP, QUARLES & BRADY, LLP**

**STATEMENT OF THE HON. FAWN SHARP**

Ms. SHARP. [Speaking native language.] Good morning, Chair Castor, Ranking Member Graves, and members of the House Select Committee on the Climate Crisis. On behalf of the National Congress of American Indians, I wanted to thank you for holding this hearing.

My name is Fawn Sharp, and I serve as Vice President of the Quinault Nation and President of NCAI.

As you point out, Chairwoman, Tribal nations are on the front lines of climate change. Every region of NCAI is deeply impacted by climate change. However, even as Tribal nations are faced with the severity of climate change impacts, our traditional ecological practices have allowed our communities to develop and implement our own innovative approaches in addressing the climate crisis.

With this week's White House Tribal Nations Summit and with Special Presidential Envoy John Kerry inviting us to sit on the U.S. delegation for COP26, this is a critical time for meetings like this to happen so that our indigenous voices and solutions are heard at the decision-making table.

To facilitate the committee's work today, my testimony will highlight existing Tribal climate strategies and will identify how the committee can support Tribal climate change initiatives. Additionally, I will highlight some of the discussions that happened at COP26 with our international indigenous communities and allies.

Tribal nations have long taken care of their land and natural resources since time immemorial. Backed with traditional ecological knowledge and practices, Tribal nations across Indian Country have been able to respond to climate change by crafting their own self-governed approaches to climate resiliency and mitigation efforts.

In my written testimony, I highlighted three Tribal nations working to address climate change impacts: the Gila River Indian Community, Blue Lake Rancheria, and the Karuk Tribe. Each of these Tribal nations have their own innovative approaches to tackling climate change impacts on their cultural and natural resources.

From leading drought contingency efforts to becoming national leaders on clean energy transition and using traditional ecological practices to combat the damages of wildfires, these Tribal nations exemplify our need to have partners in climate mitigation and resiliency efforts.

Congress plays a critical role not only as a convener but also to support and incentivize intergovernmental initiatives between Tribal governments and the Federal, state, and local governments, as well as other interested stakeholders.

This committee and others must also address the funding barriers associated with accessing Federal climate resiliency funding as well as advocate for expanding financing for climate change funding that directly supports Tribal climate resilience and mitigation projects across Indian Country.

I want to first address community relocation emergencies and their associated project costs. These projects are devastating Tribal nations across Indian Country as they work to combat the climate crisis.

My nation, the Quinault Indian Nation, knows this all too well. We are located on the southwest corner of the Olympic Peninsula of the State of Washington along the Pacific Ocean. Since time immemorial, my nation has relied on the waters of the Quinault and Queets Rivers and the Pacific Ocean for sustenance and survival.

The Village of Taholah is the primary population, social, economic, and government center of our Nation. In 2012, my Nation began developing a master plan for relocation of our residents, businesses, and institutions of lower Taholah to a new village on higher ground. This master plan involves multiple Federal agencies, including DOI, HUD, and Interior, and has an estimated price tag of \$150 million to \$200 million.

And Quinault is only one example of several Tribal nations working to relocate their communities across Indian Country.

We at NCAI applaud the passage of the Infrastructure Investment and Jobs Act, which passed a \$130 million set-aside for Tribal community relocation projects. This is the first federally established community relocation fund that is specific to Indian Country, so it is crucial that members of this committee consider establishing a Federal relocation framework for Tribal relocation efforts and promote the need for meaningful Tribal consultation on the implementation of the infrastructure package's \$130 million Tribal relocation fund.

In order to adequately address the climate crisis, we must collectively look to engage with our international partners. Many Tribal nations, Tribal organizations, and NCAI are longstanding international climate change partners.

Just this past month, we attended COP26, as the article of the Paris Agreement, Article 6, which addresses market and non-market approaches to climate change, were negotiated. On November

13th, Article 6 was adopted, with many of our positions included in the final text.

I am happy to discuss this further, and I appreciate the time and opportunity this morning. And, again, thank you for convening this very important and critically timely session. [Speaking Native language.] I am happy to answer any questions.

[The statement of Ms. Sharp follows:]

**Written Testimony for NCAI President Fawn Sharp**  
**House Select Committee on the Climate Crisis Hearing**  
**“Tribal Voices, Tribal Wisdom: Strategies for the Climate Crisis”**  
**Thursday, November 18, 2021**

**Introduction**

Chair Castor, Ranking Member Graves, and members of the House Select Committee on the Climate Crisis, on behalf of the National Congress of American Indians (NCAI), I would like to thank you for holding this hearing on “Tribal Voices, Tribal Wisdom: Strategies for the Climate Crisis.” My name is Fawn Sharp, and I serve as the Vice President of the Quinault Indian Nation and President of NCAI. I look forward to working with members of this Committee and other members of Congress to identify climate adaptation strategies that incorporate traditional ecological knowledge and respect tribal sovereignty and self-determination.

Tribal Nations are on the front lines of climate change—responding to sea level rise, coastal erosion, ocean acidification and salinity, increased frequency and intensity of extreme weather disasters, climate-induced food insecurity, altered seasonal duration, economic and health impacts, and more.

As place-based peoples, Tribal Nations have sacred histories and maintain cultural practices that tie them to their current land bases and ancestral territories. These time-honored ecological practices are designed to preserve our natural resources and guard against ecological damages to our food, water, and medicinal plant resources. Climate change not only threatens these resources and the ability of Tribal Nations to care for them as they have always done, but it also impairs the ability of Tribal Nations to build sustainable economies and care for their citizens.

However, even as Tribal Nations are faced with the severity of climate change impacts, our traditional ecological knowledge has allowed for tribal communities to develop and implement their own unique, and innovative approaches to tackling the climate crisis. In support of the climate work happening in tribal communities, this testimony highlights existing tribal climate strategies and identifies how the Committee can support tribal climate change initiatives by addressing existing funding barriers, developing a federal relocation framework, and engaging with international Indigenous communities to develop a global climate agenda.

**Transferable Lessons from Tribal Climate Mitigation and Resiliency Initiatives**

Tribal Nations have taken care of their land and natural resources since time immemorial. Backed with traditional ecological knowledge and practices, Tribal Nations across Indian Country have been able to respond to climate change by crafting their own self-governed approach to climate resiliency and mitigation practices. As such, NCAI would like to share with the Select Committee a few examples of the innovative climate action approaches being carried out by Tribal Nations within their own communities today.

*The Gila River Water Storage LLC & the Gila River Indian Community’s Key Role in Drought Management*

In Arizona, the Gila River Indian Community (“Community”) has become a leader in water management in Arizona, and in the Lower Colorado River Basin.

Nearly 10 years ago, the Community, in collaboration with Salt River Project power and water (“SRP”), one of Arizona’s largest utilities, created the Gila River Water Storage LLC in response to mounting challenges created by increasing water scarcity. The goal of the project is to make up to five million acre-feet of additional dependable, renewable water supplies available to central Arizona. Key to this initiative is “water-banking” and the creation of “long-term storage credits.” Since 2010, the Community has used its entitlement to Colorado River water that is delivered through the Central Arizona Project (“CAP Water”) to create over 1.5 million acre-feet of long-term storage credits. In brief, the Community is “banking” its pre-

viously unused CAP Water in existing aquifers to earn “long-term storage credits” that may be used for future development. This inventive program provides security and economic development opportunities for both the Community and the region.

In May 2019, the Community joined seven Colorado River basin states and other stakeholders in signing a series of agreements to implement the Colorado River Drought Contingency Plan. These agreements formalized the commitment of the Community, states, federal government, and other key stakeholders to take collaborative steps to protect and enhance the sustainability of the Colorado River and the estimated 40 million people who rely on the Colorado River for their domestic, industrial, agricultural, and infrastructure needs. The Drought Contingency Plan has been recognized by the U.S. Department of the Interior as the best path forward toward safeguarding the single most important water resource in the western United States. The Plan will address the heightened risk of severe water shortages and falling water levels due to drought conditions that have been exacerbated by climate change. The Community was key in not only protecting the Gila River Indian Community’s water rights and water settlement, but in bringing solutions that were adopted by the State of Arizona, Arizona stakeholders, and federal partners. This historic agreement serves as an example of how all governments—tribal, federal, and state—can work in collaboration to address the impacts of climate action throughout the United States.

*Blue Lake Rancheria’s Efforts to Zero Greenhouse Gas Emissions*

Blue Lake Rancheria (“Tribe”) is a federally recognized tribe located in Humboldt County, California. The Tribe began climate action planning in 2008. Since then, it has made tremendous advances in reducing greenhouse gases (GHGs) as well as community resiliency. In particular, the Tribe partnered with Schatz Energy Research Center and Pacific Gas and Electric (PG&E) to develop a \$6.3 million “low-carbon community micro-grid.” The grid provides energy to the Tribe’s critical infrastructure, including the government offices, enterprises (hotel casino, events center, and restaurants) and a certified Red Cross shelter. Each year the Tribe saves approximately \$200,000 in energy costs and reduces emissions by approximately 195 metric tons. Blue Lake Rancheria is committed to reducing its greenhouse gas emissions to zero by 2030.

*The Karuk Tribe and Using Prescribed Burns to Combat Wildfire Damages*

The Karuk Tribe lives and manages one million acres of their traditional territory located along the Klamath and Salmon Rivers in northern California. Decades of non-Native land use has severely impacted the Karuk people’s access to cultural, ceremonial, social, and traditional food resources and practices. The region’s changing climate—undoubtedly most impacted by the region’s wildfires—has only heightened these effects, which caused the Karuk to experience a decline in access to key food resources, including salmon, willow, acorns, huckleberries, and others.

In order to adapt to the changing climate, the Karuk Tribe decided to return back to their traditional wildfire management systems, where the Tribe maintained the time-tested tradition of prescribed fire burning as a climate adaptation tool. Since 2009, the Tribe has published over five eco-management plans and several reports that address the social, physical, and climate changes of their environment and the long-term effects the Karuk people would be facing if their traditional ecological practices were removed from land management practices. In 2016, the Tribe co-authored a report entitled “Retaining Knowledge Sovereignty,”<sup>1</sup> which highlights the current cultural and institutional barriers for the sovereignty of traditional ecological knowledge and provides a range of policy recommendations that would elevate tribal co-management practices on the local, state and federal levels.

Today, the Karuk Tribe carries out a meaningful collaboration with the U.S. Forest Service, the State of California, the Klamath National Forest, and the Six Rivers National Forest that upholds and honors the practice of prescribed fire burning to co-manage within the Klamath and Six Rivers National forestlands. Backed with federal, state, and local support, the Karuk’s fire burning practices have helped the Tribe restore the Klamath forestlands’ food resources and helped restore the Klamath region to a safe environmental health standard that promotes tribal usage of traditional resources and ceremonial practices.

These examples listed above exemplify the need for Tribal Nations to have partners in climate mitigation and resilience efforts. Congress plays a critical role, not only as a convener, but also to support and incentivize intergovernmental initiatives between tribal governments and federal, state, and local governments as well as other interested stakeholders. This means acknowledging Tribal Nations as true Na-

<sup>1</sup> See the Karuk Tribal Climate Change Project’s Retaining Knowledge Sovereignty Report, 2016. (<https://karuktribeclimatechangeprojects.com/retaining-knowledge-sovereignty/>).

tion-to-Nation partners in developing climate strategies, and that this Committee and other bodies of Congress must enact or strengthen laws and policies that incorporate and defer to Tribal Nations as primary climate change decision-makers, with the ability to include Indigenous traditional ecological knowledge in developing environmental sustainability solutions. Additionally, Congress must support efforts for tribal co-management of federal lands that have cultural or historic significance to Tribal Nations. Tribal Nations can be strong partners in land management to ensure environmental sustainability and mitigation of climate impacts. All of these solutions require adequate funding—not just now, but over the long run—so that Tribal Nations can continue to develop, implement, and sustain their tribal climate strategies.

#### **Funding for Tribal Climate Change Mitigation and Resiliency Efforts**

Tribal Nations are sovereign entities who are on the front lines of combating climate change and supporting environmental sustainability, and must have their own direct funding sources and should be given governmental parity in federal funding programs. However, Tribal Nations face several hurdles in accessing federal climate change programs, including:

1. Competitive grant-making, which disadvantages Tribal Nations by requiring them to compete with other states, corporate entities, and non-profits for limited funding pools;
2. Requiring Tribal Nations to provide matching funds for federal funding programs, which is a barrier to access that is consistently reported;<sup>2</sup> and
3. Several federal climate change funding programs directly pass through state entities or partners, requiring Tribal Nations to obtain climate change resilience and mitigation funding through state requirements and management systems. The process to receive funding should be directly between Tribal Nations and federal entities.

This Committee and others can address some of these funding barriers and directly support tribally determined climate resilience and mitigation projects by implementing some Congressional climate responses, including:

1. Ensuring governmental parity in climate change funding (e.g. any federal assistance provided to state and local governments should also be provided to tribal governments);
2. Protecting and expanding financing for federal climate change funding that directly benefits tribal climate resilience and mitigation strategies. For example, the Department of the Interior (DOI) houses the Tribal Climate Resiliency Program, a funding entity that has funded over 700 awards to Tribal Nations totaling more than \$60 million to assist with adaptation and implementation planning goals.<sup>3</sup> Congress and DOI should expand the current Tribal Climate Resiliency Program from single- or two-year funding to include longer, multi-year funding options. The option for multi-year grant funding is crucial for Tribal Nations to enhance their climate change program capacity without exhausting grant management and application resources and technical assistance; and
3. Implementing full and meaningful consultation processes with Tribal Nations in federal funding planning convenings to ensure federal funding programs are accessible to Tribal Nations (e.g. addressing matching funds or grant management issues prior to implementation).

By implementing this non-exhaustive list of Congressional responses, accessibility to climate change funding programs can become more available for Tribal Nations seeking to apply so that they may continue to implement their own climate change strategies and planning processes.

#### **Funding for Tribal Relocation and Protect-in-Place Efforts**

In 2020, DOI's Bureau of Indian Affairs released an "Infrastructure Needs Report of Tribal Nations and Alaska Native Villages in Process of Relocating as a Result of Climate Change". This Report's initial analyses estimate the costs of unmet infrastructure needs due to relocation at almost \$5 billion for Tribal Nations in the contiguous 48 states (\$1.365 billion) and for Alaska Native Villages (\$3.45 billion over the next 50 years).<sup>4</sup>

<sup>2</sup>See e.g. National Congress of American Indians Resolution #PHX-08-039, "Oppose SAMHSA Matching Fund Requirements."

<sup>3</sup>See the Department of the Interior's Climate Action Plan, 2021.

<sup>4</sup>See the Department of the Interior's Informational Report: The Unmet Infrastructure Needs of Tribal Communities and Alaska Native Villages in Process of Relocating to Higher Ground as a Result of Climate Change, May 2020.

NCAI applauds and greatly appreciates the work of all members of this Committee that advanced the historic Infrastructure Investment and Jobs Act. This bill includes approximately \$15 billion for tribal specific funding, with \$130 million set-aside for tribal community relocation projects. This tribal relocation set-aside funding is incredibly timely and significant, but as this Committee reported in 2020, the federal government has not established a federal tribal relocation program or a relocation framework for the development and implementation of adaptation planning for Tribal Nations and Indigenous communities.<sup>5</sup>

With the implementation of the Infrastructure Investment and Jobs Act on the horizon, it is critical that members of this Committee and other members of Congress take the following actions:

1. Create a Federal Relocation Framework for the development and implementation of the \$130 million tribal community relocation fund in the Infrastructure Investment and Jobs Act;
2. Promote the need for full and meaningful consultation on the development of a Tribal Community Relocation Program at DOI to ensure tribal priorities on relocation funding are identified and the priorities are incorporated into the Program's implementation process;
3. Assist in developing a tribal community relocation fund that does not require a competitive grant making process placing one Tribal Nation against another Tribal Nation; and
4. Advocate for increased appropriations and other financing opportunities that would allow for a tribal community relocation fund to be established and sustained at DOI, especially after the initial \$130 million investment has been depleted.

This moment in Congress and the Administration demands and needs tribal leadership on climate change. Tribal Nations find themselves a pivotal juncture—severely challenged by environmental degradation and climate-induced infrastructure damages, simultaneously presented with significantly expanded opportunities to exercise tribal self-determination, and receiving once-in-a-lifetime infusions of federal resources. These efforts should shift from being historic to being the norm in supporting tribal governments and addressing the climate crisis. This moment requires us to elevate and strengthen the voices of tribal leaders to coordinate, collaborate, and participate in local, national, and international adaptation and sustainability strategy planning.

#### **Engagement with International Indigenous Climate Leadership**

In order to address environmental sustainability and climate change impacts, we must also look to engage with partners around the globe. Many Tribal Nations, tribal organizations, including NCAI are long standing international leaders in climate change. NCAI has participated in the most significant international body addressing climate change, the United Nations Framework Convention on Climate Change (UNFCCC), since at least 2015. NCAI was notably present and active for the Conference of the Parties (COP) 21 in Paris, where the landmark Paris Agreement was negotiated. While not party to this international treaty, which established a framework for climate change mitigation, adaptation, and finance, Tribal Nations and NCAI continue to advocate for Indigenous rights and the inclusion of Indigenous-led solutions towards climate change. One of the highlights of our UNFCCC work is our active role in the International Indigenous Peoples Forum on Climate Change, which collectively advocates as a unified Indigenous voice at the UNFCCC. I have just returned from our most recent international advocacy work as I and our NCAI team attended the COP26 in Glasgow. There, Tribal Nations, NCAI, and international Indigenous organizations, gathered to make sure our needs and solutions were heard as the final article of the Paris Agreement, Article 6, was negotiated by the state parties. I am happy to report that on November 13th, Article 6 was adopted, with many of our positions included in the final text, including language on the rights of Indigenous peoples and an independent international grievance mechanism.

#### **Conclusion**

Tribal Nations have nurtured, lived, and thrived on the lands of Turtle Island since time immemorial. Our cultures, traditions, lifestyles, communities, foods, treaty rights, and economies are inextricably linked to our ability to manage these nat-

<sup>5</sup> See Solving the Climate Crisis, Select Committee on the Climate Crisis, Majority Report, June 2020. (<https://climatecrisis.house.gov/sites/climatecrisis.house.gov/files/Climate%20Crisis%20Action%20Plan.pdf>).

ural resources. On behalf of NCAI, we are greatly appreciative of the Select Committee's time and interested in hearing, learning, and understanding tribal approaches to climate mitigation and resiliency. We look forward to continuing our work with all members of this Committee to develop and sustain long-term, time-tested strategies to address the climate crisis. Thank you for the opportunity to testify.

Ms. CASTOR. Well, thank you, President Sharp.

And it was very apparent at the COP26 in Scotland the growing impact and influence of indigenous peoples from the United States but all across the globe. So we are going to talk a little bit more about that.

Next, Chairman Baker, you are recognized for 5 minutes.

**STATEMENT OF THE HON. MELVIN J. BAKER**

Mr. BAKER. Thank you. Good morning, everyone. Good morning, Chairwoman Castor, Ranking Member Graves, and members of the select committee.

My name is Melvin J. Baker. I am the elected Chairman of the Southern Ute Indian Tribal Council, the governing body of the Southern Ute Indian Tribe. Thank you for the opportunity to testify before you today on the Tribe's efforts to protect the environment by utilizing the Tribe's energy resources to support a broader mission around the energy transition and carbon neutrality.

All modern economies require a reliable and affordable energy supply, and, in turn, energy development has an environmental impact. The fact is, we must embrace innovative ways of thinking to solve problems for our future generations.

The environmental impact that is receiving significant attention today and is the subject of today's hearing is the effect of energy development on climate change. The challenges around the current trajectory of increasing CO<sub>2</sub> emissions in the Earth's atmosphere are real. We must work together globally to implement change that puts us all on the path to carbon neutrality so CO<sub>2</sub> levels in the atmosphere don't continue to increase as a result of the human activities on Earth.

We must also be mindful that, while we solve these challenges with climate change, it is not at the expense of other aspects of the environment or the standard of living we strive to provide to our Tribal members. We support a holistic approach to climate change by leveraging a natural resources niche region where energy is developed to reduce carbon emissions on Tribal lands.

Within the United States and around the world, with many well-meaning ideas and proposals introduced nearly every day, we cannot allow policy changes to exclude technological advancements because they are not considered renewables, nor can we export carbon emissions from one area of the country to another or even to a different part of world, as our Earth has one atmosphere.

A holistic approach to carbon emissions, delegation of Federal environmental programs, and project lifecycle environmental impacts require transformation of future business and energy development to address climate change and other environmental or cultural impacts. America remains the land of innovation and technology advancements, including methods to tame climate change in ways that do not result in deterioration of our material standard of living.

One example of our Tribe managing energy resources on the reservation is our Methane Capture Project. Methane and CO<sub>2</sub> naturally seep out of the ground on parts of the reservation where the Fruitland coal seam comes to the surface, also known as outcrops.

From 2008 to 2018, the Tribe successfully implemented a project that included a collection system to capture these gases and allowed us to sell over 420,000 metric tons of carbon credits associated with the project. This was possible because personnel from our Tribal government, Tribal businesses, industry, and academia supported the project. We are now working on an enhanced version of this project with deployment of newer technology to increase the amount of methane captured.

Another example of our Tribe partnering with others to provide solutions is our involvement in the Coyote Clean Power Project. Our partnership with 8Rivers Capital will pursue the development, construction, and operation of a NET Power plant that utilizes innovative technology to produce 284 megawatts of electricity from natural gas while capturing and storing CO<sub>2</sub> emissions.

NET Power continues to advance their technology towards commercial scale deployment. In fact, this portion of the testimony has been recently updated to highlight the critical milestone reached where the NET Power test facility in Texas has successfully delivered electricity onto the grid.

The commercial-scale facility planned on the Southern Ute Indian Reservation will be the first of its kind and can provide carbon neutral baseload power to support a reliable grid as more coal-powered plants are retired and intermittent renewables are added.

If Congress had not supported a renewable tax credit, solar and wind would not now make up to 10 to 15 percent of today's U.S. supply to the electrical grid. We encourage Congress to consider increasing the value of a carbon credit associated with 45Q legislation to expedite deployment of carbon capture infrastructure and new technologies that can be part of the future solution to a carbon neutral environment.

The Tribe's history of environmental stewardship and energy development both on and off the reservation is vast and unparalleled. This includes development of one of the first utility-scale solar farms in southwest Colorado, the recovery of naturally venting methane, and other alternative projects such as biofuels.

The Tribe is interested in pursuing projects that continue our long legacy of leadership, vision, and environmental stewardship by collaborating with stakeholders who share the same vision to develop and commercialize real-world solutions for the energy transition.

Thank you for the time today to testify before you today and for your interest in the Southern Ute Indian Tribe. At this point, we would be happy to answer any questions you may have. And I do have some staff from our energy department in the room with me. So thank you.

[The statement of Mr. Baker follows:]

**Prepared Statement of Honorable Melvin J. Baker  
Chairman, Southern Ute Indian Tribal Council  
On behalf of the  
Southern Ute Indian Tribe  
Before the Select Committee on the Climate Crisis  
United States House of Representatives  
Hearing  
“Tribal Voices, Tribal Wisdom: Strategies for the Climate Crisis”  
November 18, 2021, 9:30 a.m. EDT  
Remote via WebEx**

Good morning Chairman Castor, Ranking Member Graves, and members of the Select Committee.

My name is Melvin J. Baker. I am the elected Chairman of the Southern Ute Indian Tribal Council, the governing body of the Southern Ute Indian Tribe. Thank you for the opportunity to testify before you today on the Tribe’s efforts to protect the environment while utilizing the Tribe’s energy resources to support a broader mission around the energy transition and carbon neutrality.

The Southern Ute Indian Reservation consists of approximately 700,000 acres of land located in southwestern Colorado. Approximately 311,000 surface acres of that land is held in trust by the federal government for the benefit of the Tribe. The Tribe, with just under 1,500 members, is a leader in Indian Country with a demonstrated and sterling record of foresight and business acumen. The Tribe is the only Indian tribe in the nation with a AAA+ credit rating, which was earned through years of steady governance and successful and prudent business transactions. Though the Tribe has a diversified portfolio, energy development—predominantly natural gas—remains a key component of the Tribe’s strategy.

As we move forward to acknowledge the science behind the need for energy transition, nearly every aspect of our lives involves energy in some way. When the federal government placed the Mouache and Capote bands of Ute people on a reservation, the resources beneath the soil, as well as the value of those resources, were unknown. With our traditional way of life forbidden, our people were forced to find new ways to survive. When the Homestead Act opened “vacant” tribal lands to settlers, our Reservation became checkerboarded and soon we began seeing our neighbors’ profit from resource development. The impeccable timing of our tribal leaders and their intuitive decision making allowed the Tribe to sit in the driver’s seat toward self-determination. However, the Tribe has never forgotten our traditional responsibility as caretakers for mother earth and all she provides. The Tribe’s environmental management remains a priority through production of tribal resources. The traditional territory for Ute people covered the entire State of Colorado and into neighboring states, and the Tribe has zero intention of destroying the small tract of land that remains of our traditional homeland for generations yet to come.

All modern economies require a reliable and affordable energy supply, and, in turn, energy development has an environmental impact. The fact is we must embrace innovative ways of thinking to solve problems for our future generations. The environmental impact that is receiving significant attention today and is the subject of today’s hearing is the effect of energy development on climate change. The challenges around the current trajectory of increasing CO<sub>2</sub> emissions in the earth’s atmosphere are real. We must work together globally to implement change that puts us all on a path to carbon neutrality so CO<sub>2</sub> levels in the atmosphere don’t continue to increase as a result of human activities on earth. We must also be mindful that while we solve the challenges with climate change, it is not to the detriment of other aspects of the environment or the standard of living we strive to provide to our tribal members.

We support a holistic approach to climate change by leveraging the natural resources in each region where energy is developed to reduce carbon emissions on Tribal lands, within the United States, and around the world. With many well-meaning ideas and proposals being introduced nearly every day, we cannot allow policy changes to exclude technological advancements because they are not considered “renewables.” Nor can we export carbon emissions from one area of the country to another, or even to a different part of the world, as our earth only has one atmosphere. A holistic approach to carbon emissions, delegation of federal environmental programs, and project lifecycle environmental impacts require transformation of fu-

ture business and energy development to address climate change and other environmental or cultural impacts.

America remains the land of technological innovation in all fields, including ways to tame climate change in ways that do not result in a deterioration of our material standard of living.

One example of our Tribe managing our energy resources on the Reservation is our Methane Capture Project. Methane and CO<sub>2</sub> naturally seep out of the ground on parts of the Reservation where the Fruitland Coal seam comes to the surface, also known as “outcrops.” From 2008–2018, the Tribe successfully implemented a pilot project that included a collection system to capture these gases and allowed us to sell over 420,000 metric tons of carbon credits associated with the project. This was possible because personnel from our tribal government, tribal businesses, industry, and academia supported the project in various ways. We are now working on an enhanced version of this project with deployment of newer technology to increase the amount of methane captured. Our tribal entities leading the project benefit from support from the U.S. Bureau of Indian Affairs, congressional personnel, industry, and academia. Even though the characteristics of the gas naturally venting are similar to “Renewable Gas” from landfills, collection of this gas is not treated legislatively the same as renewable gas. We urge Congress to consider updating federal legislation, revising existing tax laws, to allow “Renewable Gas” to include naturally venting methane.

Another example of our Tribe partnering with others to provide solutions to the challenges we face today is our involvement in the Coyote Clean Power Project with 8Rivers Capital, LLC, to pursue the development, construction and operation of a NET Power plant that utilizes innovative technology to produce 284 MW of electricity from natural gas while capturing and storing all of the resulting CO<sub>2</sub> emissions. This first of its kind facility can provide carbon neutral baseload power to support a reliable grid as more coal power plants are retired, intermittent renewables are added, and electricity demand increases due to an increase in electric vehicle deployment. Commercial deployment of new, innovative technologies has challenges during early stages of development and Congress has a history of supporting innovative technology development as demonstrated through the Investment Tax Credit (“ITC”) and Production Tax Credit (“PTC”) for solar and wind energy. If Congress had not supported ITC and PTC tax credits, solar and wind would not now make up 10–15% of today’s U.S. supply to the electrical grid. We encourage Congress to consider increasing the value of a carbon credit associated with Internal Revenue Code section 45Q legislation to expedite deployment of carbon capture infrastructure and new technologies that can be part of the future solution to a carbon neutral energy environment.

Climate change is complex and implementing meaningful change to the current trajectory of carbon emissions requires collaboration between governments, academia, industry, and NGOs to leverage expertise from scientists, engineers, environmentalists, trade workers, and economists. The Tribe’s history with environmental stewardship and energy development both on and off the Reservation is vast and unparalleled. This includes development of one of the first utility scale solar farms in Southwest Colorado, the recovery of over 420,000 metric tons of CO<sub>2</sub> equivalent by capturing naturally venting methane, and other alternative projects such as biofuels. Participation in the Coyote Clean Power Project and the pursuit of enhanced capture of naturally venting methane along the Fruitland Outcrop will continue our long legacy of leadership, vision, and environmental stewardship while providing economic benefit and essential services to our membership. The Tribe has successfully owned, operated, and participated in numerous energy development opportunities and is interested in leading the way by collaborating with stakeholders who share the same vision to develop and commercialize real world solutions for the energy transition.

Thank you for the time to testify before you today and for your interest in the Southern Ute Indian Tribe, and at this point would be happy to answer any questions you might have.

Ms. CASTOR. Thank you, Chairman Baker.

Next, we will go to Dr. Thornbrugh.

You are recognized for 5 minutes.

**STATEMENT OF DR. CASEY THORNBRUGH**

Dr. THORNBRUGH. [Speaking native language.] Good morning, Chair Castor, Ranking Member Graves, and committee members. Thank you for the opportunity to testify at today's hearing.

[Speaking native language.] My name is Casey Thornbrugh, and I am a citizen of the National Wampanoag Tribe. I live on Cape Cod, Massachusetts, on the original homelands for those of us who call ourselves Wopanaak, also known as Wampanoag, the People of the First Light. It is important to acknowledge that several Tribal nations on the Atlantic seaboard refer to ourselves as "People of the Morning," "People of the Dawn."

USET is a nonprofit intertribal organization serving 33 federally recognized Tribal nations from the northeastern woodlands, south to the Everglades, and across the Gulf of Mexico.

Climate change will have lasting impacts on Tribal lands, seascapes, waters, and communities. As the first nations of this continent, Tribal nations have witnessed and adapted to changes in the climate that have occurred over millennia. However, Tribal nations now face a rapidly changing climate while working to protect the health and well-being of our communities, lands, and waters on a fraction of our original homelands.

Since the start of the 20th century, the average annual temperature in the U.S. has increased between 1.2 and 1.8 degrees Fahrenheit. However, northeastern areas of the USET region have observed an increase of 3 degrees. Although these may seem subtle, they are reflected in notable changes in ecosystems and weather patterns.

Over the past hundred years, global sea levels have risen 7 to 8 inches, and this has also been seen on the Atlantic coast in our region. However, with sinking land in coastal areas and damage to coastal wetlands, some areas in our region, especially in the Gulf, have seen sea level rise of 1 to 3 feet. Future projections indicate that sea levels will rise another 1 to 4 feet, with an 8- to 11-foot rise possible by 2100.

My background shows a salt marsh which is one of the few places our Tribal nation can access to fish shellfish and practice our culture. A 1-foot sea level rise it could survive. An 8-foot sea level rise would put it under water.

Specific changes in our region also include the Gulf of Maine as one of the fastest warming bodies of water in the world. Warm water marine species are showing up in the Gulf of Maine and staying longer in the summer. It is uncertain if the Gulf of Maine will remain suitable habitat for cold water species for future generations.

And for Tribal nations, it is not just about species. They are our relations. We are culturally related. They are traditional foods. They are also the namesake of some of our Tribal nations and some of our clan kinship networks.

In the Southeast, landfall of higher-category hurricanes has impacted the infrastructure and safety of USET Tribal nations. Tribal emergency response and public safety are increasingly having to respond and prepare for such events. Tribal nations across the USET region have experienced more extreme weather events in areas and during seasons for which they have been historically less frequent.

Tribal nations are working to become more resilient to the impacts of climate change. Currently, there are over 60 climate change adaptation plans, with more to come. However, there are barriers to Tribal climate adaptation planning, such as competitive funding for Tribal climate resiliency projects.

Also, the 2009 Carcieri Supreme Court decision challenges our ability to have lands placed into trust, even when those lands are on Tribal homelands and territories. Those Tribal nations may face difficulties if adaptation means relocating or reacquiring lands.

With regard to relocation, such a term is profoundly sensitive for Tribal nations, given our experiences with forced relocation and removal from our homelands. It is understood that climate change impacts are going to require the movement of communities and infrastructure in some places. However, Tribal nations must be afforded the dignity and the means to move to preserve the well-being of our Nations, as well as our rights to our ancestral places, which must be maintained even if these places become submerged.

USET supports the administration's new initiative elevating indigenous knowledge in Federal policy decisions. Tribal nations have lived sustainably in our ancestral homelands for countless generations, relying on our Traditional Ecological Knowledge, TEK. This has led to practical solutions improving forest management, wild-life corridors, and dealing with sea level rise. However, TEK must be respected and protected as Tribal proprietary knowledge. This is important because Tribal nations and cultures carry the responsibility of its application.

In conclusion, it is important for the United States to meet its trust and treaty obligations to Tribal nations through ensuring accessible, long-term funding for Tribal climate change adaptation. Also critical is removing the barriers that Tribal nations face, while upholding our right to free, prior, and informed consent.

[Speaking in native language.] I thank you all for your time and for this opportunity to testify before you today.

[The statement of Dr. Thornbrugh follows:]

**Testimony of Dr. Casey Thornbrugh  
United South and Eastern Tribes**

**Before the House Select Committee on the Climate Crisis  
for the Hearing  
"Tribal Voices, Tribal Wisdom: Strategies for the Climate Crisis"  
November 18, 2021**

Kuweeqâsunumuw. Good morning, Chairwoman Castor, Ranking Member Graves, and Committee Members. Thank you for the invitation to testify at today's hearing. Nutusees Casey Thornbrugh kah nutomas Maseepeeut. My name is Casey Thornbrugh, and I am a citizen of the Mashpee Wampanoag Tribe. I live in Mashpee on Cape Cod Massachusetts on our original homelands and seascapes for those of us who call ourselves Wôpanaâk or "Wampanoag" the People of the First Light.

I serve as the Program Manager for the Climate Change Program in the Office of Environmental Resource Management of United South and Eastern Tribes, also known as USET. Established in 1969, USET is a non-profit, inter-Tribal organization serving 33 federally recognized Tribal Nations from the Northeastern Woodlands to the Everglades and across the Gulf of Mexico. USET is dedicated to enhancing the development of Tribal Nations, improving the capabilities of Tribal governments, and improving the quality of life for Indian people through a variety of technical and supportive programmatic services.

I also serve as a Tribal Climate Science Liaison supported by the Bureau of Indian Affairs Tribal Climate Resilience Program, and I work with the Department of the Interior's Northeast and Southeast Climate Adaptation Science Centers. In these roles and through USET's Climate Change Program, we work to connect Tribal Nations with technical support and information to support Tribal resilience to the impacts of Climate Change.

Climate Change will have lasting impacts on Tribal lands, seascapes, waters, and communities. As the First Nations of this continent, Tribal Nations have witnessed and adapted to glacial retreats, sea level rise, and changes in the climate that have occurred over thousands of years. However, Tribal Nations are now contending with a rapidly changing climate, one that is human-induced by greenhouse gas emissions and changing not over thousands of years, but over decades. And we are forced to mitigate and adapt to Climate Change while trying to protect the health and wellbeing of our communities, lands, and waters on a fraction of our original homelands.

Since the start of 20th century, the average annual temperature in the U.S. has increased between 1.2–1.8° degrees Fahrenheit (Vose et al., 2017). However, northeastern areas of the USET region have observed an increase of 3.0° degrees Fahrenheit (Dupigny-Giroux et al., 2018). If the rates of greenhouse gas emissions remain at a “business-as-usual scenario” temperature increases will range from 6–12°F by the year 2100 (Vose et al., 2017). However, should global greenhouse gas emissions be reduced, the average temperature increase could be less, and at 3–7°F by the year 2100 (Vose et al., 2017). Over the past 100 years, global sea levels have risen 7–8 inches (Sweet et al., 2017), and this has also been observed on the Atlantic coast in the USET region (Fernandez, 2015). However, with sinking land in coastal areas (subsidence) and damage to coastal wetlands from dredging and unnatural canals, some areas in our USET region, especially in the Gulf, have observed a sea level rise of 1–3 feet (Carter et al., 2017). Future projections indicate that sea levels will likely rise another 1–4 feet with an 8 to 11-foot sea level rise within the realm of possibility by 2100 (Dupigny-Giroux et al., 2018).

### **South and Eastern Tribal Nations: A Historical Context**

Much of the current broad understanding of Tribal Nations and historical context within this country stems from the 19th century, when the United States and settlers expanded westward. Tribal Nations were forced to sign treaties, cede large tracts of land, and reside on reservations yet were promised autonomy and support from the federal government to manage natural resources, education, and health care. Tribal Nations within the USET region also signed treaties and were forced to cede lands. However, many USET Member Tribal Nations are “First Contact Nations” and faced 17th and 18th-century local colonial governments and distant European nations at the onset of colonization of North America.

During the 17th and 18th centuries, colonial wars and disease also decimated Indigenous populations. Within decades after establishment of the United States, a federal policy of removal was adopted, and many Tribal Nations whose aboriginal territories were in the Appalachians, Southeast, and Midwest were forcibly removed to western territories. For example, the “1830 Indian Removal Act” split entire Tribal Nations and families and forced tens of thousands of Indigenous people to reservations in Oklahoma. Despite these removals some Tribal Nations (e.g. USET Tribal Nations) found ways to remain within our territories showing resolve and determination to remain within our original homelands.

USET Tribal Nations have persevered despite colonization and federal policies of assimilation, termination and other events that have unfolded over the past 400 years. Despite disease, warfare, and removal, our Tribal Nations have persisted and continue to exhibit profound resilience. In environments considered harsh to European and American settlement such as the Gulf Coastal Bayous, the Everglades, the Appalachians, or the Northern Forests, Tribal Nations not only survived, but adapted and rebounded as communities and Nations. Tribal communities even integrated into more populated landscapes, have maintained self-governance and distinct cultural identities tied to cultural and traditional homelands and family kinship systems. The 20th century witnessed a rebound in population of Indigenous communities within the USET region and a resurgence of Tribal voices on a national platform to promote Tribal sovereignty and self-determination, management of natural resources on remaining Tribal lands that are now mere fractions of once held territories, and the restoration of Tribal lands lost to the colonies and early states.

### **Climate Change Impacts Exasperated by Dispossession of Tribal Nation Homelands**

On average, Tribal Nations retain jurisdiction for approximately 2.6% of our original Tribal homelands (Farrell et al., 2021). Although Tribal Nations across the United States have regained the management of natural resources for over 100 million acres of Tribal homelands, USET member Tribal Nations continue to have substantially smaller Tribal land bases from which to assert direct jurisdiction and management of natural resources, and Climate Change impacts to these vulnerable land bases pose serious threats to Tribal cultures and lifeways. Often, fish and wildlife, traditional foods, medicinal plants, and places of cultural significance, some of which may be outside of Tribal reservation or trust lands, are impacted by Climate Change. This means Tribal Nations must work with federal, state, and local jurisdictions to address Climate Change impacts on natural resources of cultural and economic significance beyond Tribal lands. At best, institutional barriers arise as the interests and management plans of non-Tribal jurisdictions often do not align with Tribal priorities or cultural values. At worst, Tribal Nations are not even included in local and regional plans that would have implications on our natural resources and areas of cultural significance.

Ultimately, one of the greatest threats of Climate Change is the migration of species and shifting of ecosystems beyond Tribal homelands or even beyond Tribal regions, rendering the fixed political boundaries and territories of present-day homelands unconnected to long held traditional lifeways.

Specific climate change impacts in the USET Region include the following:

- Temperature change has greatly impacted the timing of species migration and reproduction across the USET region. For example, the timing for fish that migrate from the sea to freshwater rivers, such as salmon and herring, for spawning has been changing.
- In the USET region, the Gulf of Maine is one of the fastest warming bodies of water in the world. Warm water species such as blue crabs, and black sea bass are showing up in the Gulf of Maine and staying longer in the summer. It is uncertain if the Gulf of Maine will remain suitable habitat for cold water species such as cod, haddock, pollock, or Atlantic salmon for future generations to come.
- The ranges of many culturally significant plant and animal species are moving northward on land and in the oceans, beyond the homelands of Tribal Nations while Tribal lands, due to U.S. policies forced upon us such as reservations and relocation, remain fixed. Further, invasive plant and animal species that are favored by warmer conditions have moved into ecosystems, thus competing with native species Tribal Nations have relied upon for millennia.
- Certain species adapted to warmer climates are showing up in more northern locations. For example, deer ticks which are vectors for Lyme disease are now more common in the Northeast woodlands. Warmer winters also allow moose ticks to survive longer, plaguing the moose population.
- In our region, Tribal and state agencies are also working to keep an invasive species, the Emerald Ash Borer (EAB), at bay. EAB is an invasive insect that is a threat to Brown Ash trees, a tree of cultural significance for Tribal Nations of the Northeastern Woodlands.
- The winter season is getting shorter. Winter snowpack, frozen ponds, rivers, and lakes are no longer a guarantee each winter in the Northeast woodlands.
- In the Southeast, landfall of higher category hurricanes has impacted the infrastructure and safety of USET Tribal Nations. Tribal emergency response and public safety are increasing having to respond and prepare for such events.
- Tribal Nations across the USET region have observed a higher frequency of extreme weather events such as heat waves, tropical storms, cold snaps, ice-jam flooding from early ice thaws on rivers, and tornados in areas and during seasons for which they have been historically less frequent.
- Rainfall is getting heavier throughout most of the USET region, due to more moisture in a warmer atmosphere. However, extended dry periods and droughts continue to occur as well, and when they occur, they are more damaging under warmer conditions.
- Sea level rise poses a greater risk to coastal habitats and coastal communities from tidal and storm surge flooding. Several of our USET Member Tribal Nation communities are directly on the coast or in tidal areas susceptible to the impacts of sea level rise.

Many of the places that have significance to the cultural heritages, identities, and physical and mental health of Indigenous peoples from Tribal Nations within the

USET region are located off Tribal reservation or trust lands. In many instances, places of cultural significance are now located within national parks, monuments, wildlife refuges, and seashores, or state parks, forests, or private lands. While Climate Change impacts the ecosystems, water, and landscapes of these places, our Tribal Nations continue to struggle with non-Tribal jurisdictions for access to these places for activities of cultural, spiritual, or ceremonial importance. USET member Tribal Nations and their citizens often find themselves in a position of having to request access to locations of cultural significance to partake in cultural activities they have been engaging in for thousands of years. Loss of access to these places impacts both the physical and mental health of Indigenous peoples and has been doing so for many years. Climate Change impacts do threaten sites, practices, and relationships with cultural, spiritual, or ceremonial importance which are foundational to Indigenous peoples, yet current barriers to access and a lack of a meaningful role in the Climate Change adaptation planning process of these areas compounds the issue.

### **Tribal-led Climate Change Adaptation and Institutional Barriers**

Tribal Nations are working to become more resilient to the impacts of Climate Change. As of this year, there are over 60 Tribal Climate Change adaptation plans and vulnerability assessments across Indian Country, with many more currently in development (University of Oregon, 2021). Some of the first Tribal-led Climate Change adaptation plans within the United States came from Tribal Nations in the USET region.

The impacts of the 2012 northeastern summer drought and heat wave, as well as coastal flooding from Hurricane Sandy, respectively, prompted the Saint Regis Mohawk Tribe and the Shinnecock Indian Nation to complete Climate Change adaptation plans for their homelands, waterways, and communities in 2013. Other Tribal Nations within the USET region have followed suit through exploring Climate Change adaptation options and opportunities to fund adaptation activities. Often, departments within Tribal Nations, such as natural resource or cultural preservation departments, take the lead, but not exclusively, as Tribal emergency management or economic development programs have also explored Climate Change adaptation options.

Despite exceptional efforts toward Climate Change adaptation, there remain significant institutional barriers to Tribal Climate Change adaptation planning. The same institutional barriers of limited jurisdiction and access to traditional territory or places of cultural significance remain factors in Tribal Climate Change adaptation planning. Though there have been significant increases in federal funding toward Tribal Climate Change resilience, including through the recent infrastructure bill, funding for long-term Climate Change adaptation remains a challenge. Tribal Climate Change resiliency funding remains very “project-based,” and unsustainable for long-term Climate Change adaptation plan implementation.

Furthermore, despite federal trust and treaty obligations, Tribal Nations continue to be limited to competitive funding for Climate Change resiliency projects. This makes such funding inaccessible to Tribal Nations with limited grant pursuit staffing capacity, regardless of significant Climate Change impacts and concerns (ATNI, 2020). In addition, federal natural and cultural resources funding can be very sector-, species-, or place-specific, whereas Tribal Nations are concerned about the health of our whole communities and environments. Many Tribal Nations are forced into the position of pursuing multiple grants and searching for funding from different sources with varying objectives required in order to address larger Climate Change impact on our homelands and communities. Federal funding for Climate Change adaptation is also at the whim of political power shifts in Congress and the White House. Opportunities available this year may not be available next, hobbling a consistent or long-term Climate Change adaptation plan.

Climate Change adaptation must also include placing lands into trust to provide communities safety from sea level rise and to provide Tribal Nations access to species of cultural importance whose ranges have shifted due to Climate Change. Tribal Nations also seek to restore our homelands to restore our jurisdiction so that we may care for and protect natural and cultural resources. In addition to extremely burdensome and lengthy federal processes to restore our homelands, the 2009 *Carcieri* Supreme Court decision further challenges the ability of Tribal Nations to have lands taken into trust, even when those lands are on Tribal homelands and territories. Thus, if a location becomes uninhabitable or ecosystems with cultural significance shift due to Climate Change, Tribal Nations may face difficulties and opposition, if adaptation means relocating to and re-acquiring lands that provide access to cultural resources and safety from sea level rise.

When it comes to Tribal Nation relocation, it cannot be overstated that such a term is profoundly sensitive for Tribal Nations, as we have had multiple experiences in U.S. history with forced or coerced relocation and removal of access to our homelands. It is understood that sea level rise, riverine erosion, and other Climate Change impacts, and worst-case scenario projections are going to require the movement of communities and infrastructure in some locations. Tribal Nations must be afforded the dignity and the means to move to places that will continue the health and well-being of our Nations and communities. However, our rights and access to our original homelands, waters, and coasts must be maintained and protected, even if these places become submerged.

#### **Traditional Ecological Knowledge (TEK)**

USET acknowledges and supports the Biden Administration's commitment to elevating Indigenous Knowledge in federal policy decisions. This also represents a partial solution to management of public lands not held in trust. Tribal Nations, being the sovereign First Nations of this continent with thousands of years of experience, are in the position to be leaders and partnering Nations with the United States to address the Climate Crisis. Tribal Nations have lived sustainably in our ancestral homelands for countless generations, relying on our Indigenous Knowledge, also commonly referred to as Traditional Ecological Knowledge (TEK), a body of information built upon observations, experiences, and lessons derived from living in a sustainable manner with the natural environment. The application of TEK has also led to practical solutions improving forested management, wildlife corridors and dealing with sea level rise (Leonard, 2021). However, TEK must be respected and protected as Tribal proprietary knowledge, as Tribal Nations and cultures carry the responsibility of its application for the well-being of our communities, homelands, and seascapes.

#### **Conclusion**

Successful adaptation for USET member Tribal Nations will rely on use of Indigenous knowledge, resilient and robust social systems and protocols, and a commitment to principles of self-determination. However, it will also require additional action from the federal government to address the institutional barriers USET member Tribal Nations face today in adapting to Climate Change. Ultimately, it will be important for the United States to meet its trust and treaty obligations to Tribal Nations through ensuring accessible, flexible long-term funding for Tribal Climate Change adaptation. With regard to TEK, it will be important to uphold an approach of free, prior, and the informed consent of Tribal Nations when TEK is sought for local and regional Climate Change adaptation. Successful adaptation will also require respect for Tribal Nations to develop our own Climate Change adaptation frameworks and strategies that capture our Indigenous knowledge systems for resilience in the face of Climate Change (Leonard, 2021). Tribal Nations in the USET region and across the country have demonstrated commitment and resolve in protecting and restoring our homelands with proportionally less funding, lower staffing capacity, and fewer resources at hand. Competitive project-based funding remains unsustainable for long-term Climate Change adaptation planning. Tribal Nations require support from our federal partners in the trust relationship to build long term Tribal department staff and program capacity to develop and implement adaptation plans to the long-term impacts Climate Change. USET acknowledges and supports the significant increase in Climate Resilience Funding in the current Infrastructure Bill and the Administration's commitment to elevating Indigenous Knowledge in federal policy. In accordance with trust and treaty obligations to support Tribal sovereignty, self-governance, and self-determination, we urge additional federal action and policy to support sustainable Tribal Climate Change adaptation planning and resilience to sustain our lifeways for generations to come.

#### **References**

- Affiliated Tribes of Northwest Indians (ATNI). (2020). Tribal Review of the 2020 Congressional Action Plan on the Climate Crisis, Climate Crisis Action Plan—ATNI Climate Change (atntribes.org).
- Carter, L., A. Terando, K. Dow, K. Hiers, K.E. Kunkel, A. Lascrain, D. Marcy, M. Osland, and P. Schramm. (2018). Southeast. In *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II* [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 743–808. doi: 10.7930/NCA4.2018.CH19. Southeast—Fourth National Climate Assessment (globalchange.gov).

Dupigny-Giroux, L.A., E.L. Mearns, M.D. Lemcke-Stampone, G.A. Hodgkins, E.E. Lentz, K.E. Mills, E.D. Lane, R. Miller, D.Y. Hollinger, W.D. Solecki, G.A. Wellenius, P.E. Sheffield, A.B. MacDonald, and C. Caldwell. (2018). Northeast. In *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II* [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 669–742. doi: 10.7930/NCA4.2018.CH18. Northeast—Fourth National Climate Assessment (globalchange.gov).

Farrell, J., Burow, P. B., McConnell, K., Bayham, J., Whyte, K., & Koss, G. (2021). Effects of land dispossession and forced migration on Indigenous peoples in North America. *Science*, *374*(6567), eabe4943.

Fernandez, I.J., C.V. Schmitt, S.D. Birkel, E. Stancioff, A.J. Pershing, J.T. Kelley, J.A. Runge, G.L. Jacobson, and P.A. Mayewski. 2015. *Maine's Climate Future: 2015 Update*. Orono, ME: University of Maine. 24pp.

House Select Committee on the Climate Crisis. (2020). *Solving the Climate Crisis: The Congressional Action Plan for a Clean Energy Economy and a Healthy, Resilient, and Just America*, Climate Crisis Action Plan.pdf (house.gov).

Leonard, K. (2021). WAMPUM Adaptation framework: eastern coastal Tribal Nations and sea level rise impacts on water security. *Climate and Development*, 1–10, Full article: WAMPUM Adaptation framework: eastern coastal Tribal Nations and sea level rise impacts on water security (tandfonline.com).

Status of Tribes and Climate Change Working Group (STACCWG). (2021). *Status of Tribes and Climate Change Report*, Institute for Tribal Environmental Professionals, Northern Arizona University, Flagstaff, AZ. [Marks-Marino, D. (ed.)], <http://nau.edu/stacc2021>.

Sweet, W.V., R. Horton, R.E. Kopp, A.N. LeGrande, and A. Romanou. (2017). Sea level rise. In: *Climate Science Special Report: Fourth National Climate Assessment, Volume I* [Wuebbles, D.J., D.W. Fahey, K.A. Hibbard, D.J. Dokken, B.C. Stewart, and T.K. Maycock (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 333–363, doi: 10.7930/J0VM49F2. *Sea Level Rise—Climate Science Special Report* (globalchange.gov).

United South and Eastern Tribes Sovereignty Protection Fund (USET–SPF). (2019). *Testimony of United South and Eastern Tribes Sovereignty Protection Fund Submitted to the House Natural Resources Subcommittee for Indigenous People of the United States for the Record of the February 12, 2019 Hearing, “The Impacts of Climate Change on Tribal Communities,” Microsoft Word—7.3 Comments Climate Change Tribal Nations clean copy 022619 (003)* (usetinc.org).

University of Oregon. (2021) *The Tribal Climate Change Guide. Tribal Adaptation Plans. Adaptation Plans | Tribal Climate Change Guide* (uoregon.edu). Accessed November 15, 2021.

Vose, R.S., D.R. Easterling, K.E. Kunkel, A.N. LeGrande, and M.F. Wehner. (2017). Temperature changes in the United States. In: *Climate Science Special Report: Fourth National Climate Assessment, Volume I* [Wuebbles, D.J., D.W. Fahey, K.A. Hibbard, D.J. Dokken, B.C. Stewart, and T.K. Maycock (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 185–206, doi: 10.7930/J0N29V45. *Temperature Changes in the United States—Climate Science Special Report* (globalchange.gov).

Ms. CASTOR. Thank you, Dr. Thornbrugh.

Next up, Ms. Thomas.

You are recognized for 5 minutes. Welcome.

#### STATEMENT OF PILAR THOMAS

Ms. THOMAS. Good morning, Madam Chair, Ranking Member Graves, and honorable members of the committee. Thank you for the opportunity to provide my views on Indian Country’s substantial opportunities to contribute to this nation’s efforts, ambitious efforts, to reduce carbon to better prepare and adapt to the now too real impacts of climate change on Tribal communities.

Certainly, coming on the heels of the now-enacted Infrastructure Investment and Jobs Act, this hearing is timely and important to identify the critical role the Federal Government can play and should play in supporting Indian Tribes, Alaska Native villages, and other indigenous communities, and the strategies and actions

necessary to protect these vulnerable communities from the worst of these impacts.

Let me start with the good news. According to a recent analysis by the National Renewable Energy Laboratory in 2018, Indian Country has over 6 percent of the total technical and economically feasible renewable energy resources in the United States. And that is compared to having about 2 percent of the landmass. So, clearly, an outsized amount of resources that Tribes have, with respect to solar, wind, biomass, geothermal, and hydroelectric.

Despite having almost 21,000 terawatt hours of potential generation capacity, which is more than enough power to power the whole United States multiple times over, there are only two commercial scale renewable energy projects operating on Indian lands.

So Indian Country's clean energy resources can and should and, in fact, must be brought to bear on the United States' efforts to reduce its carbon emissions if the nation is going to succeed at meeting its commitments to future generations and the world in mitigating climate change.

Furthermore, these resources can be brought to bear on Tribes' and Alaska Native villages' efforts to protect themselves from climate change through the use of these same resources in distributed energy projects, whether that is rooftop solar, community solar, microgrids, and as a way to enforce and reinforce energy self-sufficiency, energy sovereignty, but, almost more importantly from a climate change perspective, energy resiliency and reliability.

But these goals can only be accomplished through mass deployment of these types of technologies. With the plummeting costs especially around solar and storage, Federal support, such as additional technical and financial assistance, can be more impactful and more meaningful.

But while this Federal support is necessary, it is not sufficient. Leveraging these kind of resources can still be very expensive. Distributed energy projects, of course, while, again, we are reducing costs, the cost of storage is still relatively high. The cost of microgrids is still relatively high. Even Blue Lake Rancheria, which President Sharp referenced in her testimony, the only Tribe with two actual working micro-grid facilities used for energy resiliency, were still multimillion-dollar projects.

So the challenge for Tribes and the Federal Government is, how can we take advantage of other financing opportunities, public-private partnerships, to see more mass deployment of these efforts, of these types of technologies from an energy reliability standpoint? How do we focus on what would be critical infrastructure, especially schools, and hospitals? We saw how important it was, of course, to have robust public health systems in the last year and a half with COVID, how important it was to have robust water, wastewater, and other types of public health infrastructure, which, of course, cannot operate without energy. How do we protect government campuses, our Tribal enterprises, and fisheries and farms—everything that does, in fact, still require power and is the most vulnerable with respect to climate?

A couple of key challenges that we still have and still remain is, from a community-scale perspective, a distributed energy perspective, is the exercise of Tribal sovereignty over that development.

And so Congress and the Federal Government can really assist Tribes with promoting more interaction at the state level, promoting more Tribal sovereign authorities over the exercise of energy development, and providing more technical and financial resources.

And so, with that, again, I thank you for your time, and I look forward to answering any questions you might have.

[The statement of Ms. Thomas follows:]

**Testimony<sup>1</sup> of Pilar M. Thomas**

**Prepared for the  
Select Committee on the Climate Crisis  
United States House of Representatives  
on**

**“Tribal Voices, Tribal Wisdom: Strategies for the Climate Crisis”**

Chair Kathy Castor and Ranking Member Graves, thank you for the opportunity to provide my views on Indian Country’s substantial opportunities to contribute to the United States’, President Biden’s and state and local governments’ ambitious carbon reduction goals and to better prepare and adapt to the now too real impacts of climate change on tribal communities. Coming on the heels of the now enacted Infrastructure Investment and Jobs Act, and on the verge of the (hopefully) soon to be passed Build Back Better Act, this hearing is timely and important to identify the critical role the federal government can play—and should play—in supporting Indian Tribes, Alaska Native villages, and other indigenous communities in the strategies and actions necessary to protect vulnerable communities from the worst of those impacts.

In June 2020, the Select Committee issued its Majority Staff Report on “Solving the Climate Crisis.” That report included a section on partnering with Tribes and Indigenous Communities. I’m encouraged that the House and this Committee recognize the importance of renewable energy, energy efficiency and workforce development for Indian tribes, and the roles that tribes can, and should, play in the nation’s clean energy future.

**Tribal Clean Energy Development Should be Unleashed to Achieve  
Climate Change Mitigation Goals**

According to the National Renewable Energy Laboratory’s *Techno-Economic Renewable Energy Potential on Tribal Lands*, published in 2018,<sup>2</sup> Indian Country has over 6% of the total technically and economically feasible renewable energy resources in the United States. A summary of the resources is shown in the following table:

Resource / Technology	Installed Capacity	Generation Capacity	Generation Capacity— % of United States
Solar PV	6,035 GW	10,688 TWh	5.4%
Wind	891 GW	7,701 TWh	8.3%
Biomass	542 MW	2 TWh	1.6%
Geothermal	330 MW	228 thousand MWh	.6%
Hydroelectric	21 GW	124 TWh	36.4%
Total	9,063 GW	20,912 TWh	6.5%

<sup>1</sup>The views expressed here are those of the witness, and do not necessarily reflect the views of the Firm or its clients. Some of this testimony is adapted from previous testimony before the House Energy and Commerce Committee on July 8, 2020. That testimony can be found at: [https://energycommerce.house.gov/sites/democrats.energycommerce.house.gov/files/documents/Testimony-Thomas-Tribal%20Communities%20Hearing\\_070820.pdf](https://energycommerce.house.gov/sites/democrats.energycommerce.house.gov/files/documents/Testimony-Thomas-Tribal%20Communities%20Hearing_070820.pdf).

<sup>2</sup><https://www.nrel.gov/docs/fy18osti/70807.pdf>.

With almost 21,000 TWh of generation capacity, there is enough energy potential to power the whole United States<sup>3</sup> multiple times over. And yet, despite these immense clean and renewable energy resources, there are only two commercial scale renewable energy projects operating on Indian lands. Indian Country clean renewable energy resources can, should, and must be brought to bear on the United States' efforts to reduce carbon emissions if the nation is going to succeed at meeting its commitments to future generations and the world in mitigating climate change.

Unfortunately, there are many obstacles remaining that need to be overcome if this contribution is to be unlocked. Those include:

**Access to transmission, transmission capacity and state siting processes.** Access to the Bulk Transmission System and Wholesale Markets through “middle grid” development—and the capital necessary to build it—is necessary for Tribes to be able to access wholesale markets for electricity purchases or to sell power into the market.

**Access to off-takers, buyers, and markets.** One way to expand access to markets is through leveraging corporate off-takers. According to several recent studies in 2017, private corporations entered into contracts to procure almost 2 GW of solar and wind power. Corporations are engaged in these direct procurement efforts for several reasons, including corporate sustainability goals, renewable energy commitments, climate change commitments, and economic benefits. Recently for example, over 1,500 United States companies—from Fortune 500 to small businesses—have committed to supporting the Paris Climate Accord. Corporate procurement is now one of the major drivers of new renewable energy deployments. These companies are prime partners for tribes that are still interested in commercial scale projects—generating and exporting renewable power off of the reservation. Commercial projects primarily benefit tribes through lease payments, development fees, taxes, and construction, operations and maintenance jobs. A typical commercial scale project requires an experienced developer, a tax equity investor (to monetize the federal tax credits), a willing lender, and a credit worthy off-taker. In the past, the off-taker has typically been the local utility. But, in many states, the ability to sell to the utility can be challenging at best. As more and more companies are devising ways to directly procure renewable power, tribes with good locations and plenty of renewable energy potential may have another advantage—as a minority supplier to a corporate direct user off-taker. Another benefit of working directly with a corporate off-taker is that Tribes could use their substantial renewable energy resources to attract companies—especially those that are in energy intensive industries, or have renewable energy goals that cannot be met by local utilities—to locate on the reservations. This effort would require investment in energy infrastructure and human capital. And, it has the added benefit of bringing jobs to Indian reservations.

**Development support.** Capacity building and development capital are still in short supply to assist tribes, tribal leaders and tribal staff with development-related activities for commercial scale renewable energy projects. While it is not rocket science, development activities are hard, complicated and expensive. Environmental review processes, market and financial analysis, transmission interconnection and studies—to name just a few major development activities—take time, money and staff power. Yet, there is little to no federal support for this critical (and fatal flaw) component of actually bringing projects to fruition.

**Inclusion in state and FERC planning efforts.** FERC recently announced a transmission task force, which include 10 state utility commissioner representatives. But, not a single Indian Tribe representative sits on this important task force. If Tribes are going to participate in the clean energy economy, projects located on tribal lands will need access to transmission. And, transmission line projects that will bring clean energy resources to load centers will, in many instances, have to be routed through tribal lands.

**Inclusion in state energy regulatory decision-making.** With the exception of California, no state public utility regulatory body has a tribal consultation policy or incorporates regular outreach to and input from Indian Tribes. So, while many states have increased their clean energy standards, none have done so with the renewable resources in Indian Country in mind.

**Complexity of deal structures and financing to monetize tax benefits.** As long as federal tax incentives continue to drive the economics of renewable energy

<sup>3</sup>According to the Energy Information Administration, the United States consumed 4 trillion kWh (4 TWh) in 2020.

projects, complex deal structures will continue to be the hallmark of clean energy projects. This complexity further adds to the disincentives to include tribes in the development of projects.

**Triple sovereign regulatory jurisdiction.** Virtually every project on Indian lands has to be approved in some way by all three sovereigns—tribes, the federal government and the state utility regulatory body. This adds further cost and complexity to developing and implementing projects on tribal lands.

### **TRIBAL CLEAN ENERGY AND UTILITY DEVELOPMENT IS THE KEY TO ADAPTATION AND RESILIENCY IN THE FACE OF CLIMATE CHANGE IMPACTS**

All Indian Tribes and Alaska Native villages are capable of implementing distributed energy resource projects that support energy self-sufficiency, energy sovereignty, and energy resiliency and reliability. These goals can be accomplished through mass deployment of community solar, distributed energy, storage, energy efficiency and microgrids or through tribal utility authorities. With plummeting costs of these technologies, federal support—such as technical and financial assistance—can be more impactful and more meaningful. The proposed increases in funding to USDA, DOE, Commerce (among others) through the Infrastructure Investment and Jobs Act and increased appropriations will go a longer way in supporting project development and implementation. But, while this federal support is necessary, it is not sufficient.

Leveraging clean energy resources through the implementation of community solar, distributed energy, microgrids and energy efficiency projects as climate resiliency tools is imperative for Indian Tribes and Alaska Native villages. Lower costs of solar, wind and storage have made distributed energy projects more economically feasible. Distributed energy projects can include rooftop solar, small wind, and community scale solar or wind up to 5–10 MW. The key is that the project is located in the electricity distribution system and is intended to be used directly by a single or multiple buildings (or homes). The primary benefits of a distributed energy project are to reduce the carbon footprint, save money (by offsetting the amount of power purchased from your utility), create jobs, and increase resiliency and reliability (protection from natural and man-made risks to big grid failure). There are still technological challenges with integrating intermittent renewables into the distribution system. And utilities are very concerned about the economic impacts on their business model as more people and companies deploy distributed energy projects. But, a recent study of utility executives in 2017 reveals that at least 60% of them expect distributed energy projects to continue to proliferate and their utilities will have to obtain the necessary expertise and technology to integrate those projects with minimal disruption to the distribution system.<sup>4</sup>

Almost all of the tribal renewable energy projects deployed in the last 5 years have been distributed energy projects. Several tribes have deployed 1–3 MW systems, with many also deploying rooftop solar on tribal member homes. These projects have generally been limited in size due to the various federal grant programs. But, many more tribes can, and should be, exploring larger “community scale” projects: projects that are between 5–30 MWs that can power critical infrastructure, such as schools, hospitals and health care, public safety, government campuses, tribal enterprises, wastewater treatment, fisheries, farms, and tribal housing. These projects are typically too costly for the federal grant programs but are ripe for public-private partnerships to leverage tax credits that will reduce the cost to construct (and thus the cost of power).

The start-up of tribal-owned electric utilities has accelerated in the last decade primarily due to feasibility study financial assistance from the Department of the Interior and technical assistance from the Department of Energy. Tribes are learning the about the major economic benefits of tribal electric utility ownership and operation which include, but are not limited to:

- Tribal sovereignty, energy self-sufficiency and control over the source of the tribe’s electricity
- Cost reduction and management of electricity costs
- Revenue generation and job creation

Through a tribal utility, tribes can reduce their dependence on fossil fuel electricity (such as coal and natural gas), increase their use of renewable energy and

<sup>4</sup> Accenture Consulting, “Power Surge Ahead: How Distribution Utilities Can Get Smart with Distributed Generation” (2017).

distributed energy resources, and reduce electricity costs through the acquisition of electricity of their choosing. Furthermore, a tribal utility can be a vehicle for developing tribal renewable energy resources for both on-reservation and off-reservation use. This provides the tribe with a greater degree of control over the development of those energy resources, while maintaining a separation of effort between the tribal government and the tribal utility's enterprise efforts.

In addition, a tribal utility can control its electricity costs through access to the wholesale electricity market. As regulated utilities and rural electric cooperatives continue to increase retail rates, the wholesale cost of power has stayed relatively flat. Furthermore, tribes that are serviced by incumbent utilities—whether investor owned, rural electric cooperative, or a public power company—lack control over both the source of power and the price they pay for power. A tribal utility can directly access the wholesale market, or negotiate for long term electricity contracts, that will most likely result in lower power costs for the tribal government, enterprises, and tribal members who live on the reservation.

Moreover, instead of making payments to outside utilities, the tribal government, enterprises and members will make payments instead to the tribal utility. These revenues would go directly to a tribal entity that is more responsive to the tribal community. The revenues will also go towards electricity procurement, operations and maintenance of the electricity system and reinvestment into the community. In addition to energy choice, the tribal utility will have more flexibility in operations and customer service.

Lastly, the tribal utility will result in funds and jobs remaining in the tribal community. Tribal utilities can promote tribal member workforce development and job creation through the operations and maintenance of the utility. Depending on the size of the reservation, the energy system, and the number of facilities to be serviced, there can be dozens of new jobs for tribal members. If the tribal utility makes the determination that it can produce its own electricity—such as through distributed energy systems like community solar, wind, or small natural gas generation—the construction and operation of those types of projects will result in further job creation.

Notwithstanding all these potential benefits of tribal electric utility ownership, almost no tribal utility is vertically integrated—that is, they do not produce or generate their own electricity. Tribal utilities continue to operate as distribution utilities only and import all the electricity used within the utilities' service area. Most electric power for tribal utilities comes from the federal power marketing authorities (primarily Western Area Power Administration and Bonneville Power Administration), with additional power coming from wholesale power markets or bi-lateral power purchase agreements.

#### **ADDITIONAL POLICY SUPPORT FOR TRIBAL CLEAN ENERGY OPPORTUNITIES**

Additional policy support to help move the needle for Indian Tribes and Alaska Native villages to take full control of their clean energy resources to support their climate adaptation and resiliency goals and implementation actions include support for, among others:

- *The exercise of tribal sovereign authority over energy services and development on tribal lands.* For the most part, tribal energy development is dependent on state electricity policy and regulatory regimes through the state's jurisdiction over and regulation of utility companies that serve tribal lands. If tribes want to develop and use their own clean energy resources, they have to comply with state policies and regulations—tribal energy policy is cabined by state energy policy.

Federal agencies, such as the Bureau of Indian Affairs and the Environmental Protection Agency, can also support the full exercise of tribal sovereign authorities through the promotion and technical support for tribes to take advantage of HEARTH Act (25 USC § 415(h)) and Tribal Energy Resource Agreements (25 USC § 3504) for leasing and other land agreements and "Treatment as State" status for Clean Air Act (42 USC § 7601(d)(2)(B)) and Clean Water Act (33 USC § 1377(e)(2)) permitting.

- *Specific financial and technical assistance to tribes for tribal energy utility formation and operations to give Indian Tribes the ability to control energy costs, create jobs, control energy sources, and keep revenues within the Tribe.* For example, many of the grid resiliency programs enacted in the recent American Energy Act (PL 116-260, Div. Z) and Infrastructure Investment and Jobs Act (PL 117-58) include tribes, but it is not clear that tribal utilities are eligible

for these financial assistance programs. The Department of Energy should be encouraged to conduct specific outreach and program development geared towards the unique aspects of tribal-owned utilities.

- *Tribal—incumbent utility partnerships to leverage federal support for infrastructure investment and economic viability.* Grid modernization is expensive, but necessary to improve grid performance, integrate distributed energy and storage, or otherwise improve grid resiliency and reliability. Most tribes will not be able—or want to—start up tribal owned and operated electric utilities. The Department of Energy could leverage its relationship with incumbent utilities and utility regulators to improve interactions between tribes and their incumbent utilities and to provide additional financial and technical assistance support for tribal-incumbent utility partnerships to develop clean energy infrastructure on tribal lands and in tribal communities.
- *Redefine the energy transition challenge.* One major challenge with thinking about the energy transition in Indian Country is the very limited way in which this term is used. While it is no doubt important to provide support and assistance to fossil fuel tribes—those that have energy economies based on coal, oil and gas—there is a broader issue with the energy customer—those that use energy services. For example, as the “electrification” efforts escalate to reduce carbon emissions, retrofitting tribal government buildings, housing, and enterprise facilities and change out vehicles will be expensive and time-consuming. There are currently no federal programs to support electrification in Indian Country. One tribe in Minnesota recently received a substantial state grant for a “net zero carbon emission” project to reduce carbon emissions across the whole tribal community. The key effort in this will be to electrify the building stock, replacing natural gas and propane heat with electricity.
- *Deployment of distributed energy resources and upgraded distribution grids to accommodate the transition to electrification and carbon emission reductions.* More states and local governments are developing low-income and disadvantaged communities programs to support these aspects of energy transition and climate resiliency efforts. But, very few are incorporating tribal communities into these efforts. Federal support will be necessary to step into this gap to ensure tribal communities are not left behind in the broader electrification, carbon reduction and climate resiliency efforts leveraging distributed clean energy resources across the country.

Thank you again for the opportunity to provide this written testimony and information to the Select Committee on the Climate Crisis. I look forward to answering any further questions from the members.

Ms. CASTOR. Well, thank you very much.

And thanks to all of the witnesses for their very insightful testimony. And thank you for getting up early, for our witnesses from the West Coast especially.

I will recognize myself for 5 minutes to kick off the questioning.

Well, all of the witnesses have really highlighted the enormous opportunities that clean renewable energy brings to Tribal lands and in Tribes and to all of us across this country. What I have heard from you is that clean and renewable energy will create jobs, it will lower cost, it will clean up the air, it will reduce pollution, and provide health benefits in areas of the country that really need it.

So, President Sharp, you are a leader in this. What do we need to do in Tribal consultation to really bring these opportunities to indigenous peoples across this country?

Ms. SHARP. Yes, I really appreciate—I know you have a question, but—your remarks in the opening statement. The issue of free, prior, and informed consent and the ability for Tribal nations to have a decisive say, that is something that I have started to advocate in advance as a policy in which nobody has to give that to us. We are not seeking FPIC from state agencies and Federal agencies.

The idea that a Tribal nation, like any other governmental body, should have a decisive say over our land, territories, and resources is an international standard that transcends national borders.

And for Tribal nations to be able to seize the opportunities that Pilar had mentioned, when you look at the opportunity that we have within Indian Country, there is no question that Tribal nations, in assisting and partnering with the United States to unleash and unlock the energy potential within this country, we should have a decisive say.

And so it is critically important that, as we build out our climate strategies, that Tribal nations are able to exercise the full spectrum of governmental powers, authorities, and decision making.

Ms. CASTOR. Ms. Thomas, you make a very compelling point about clean energy development being a key part of adaptation and resilience and economic opportunity for Tribal nations. And I see investments in community solar and micro-grids building climate resilience across the country but also providing those enormous, as you called, oversized economic opportunities.

Could you give us a few examples or two of clean energy projects in Tribal communities and the broader impacts they are having?

Ms. THOMAS. Yes. So, again, you know, the Blue Lake Rancheria, which I think is in Representative Huffman's district, there are—thankfully, over the last few years or so, there has been a real shift in Federal financing for these smaller, community scale distributed energy projects, because they provide lots of different benefits to Tribes. One, first and foremost, jobs, right? These are the kind—you can't outsource these jobs, and you can't automate these jobs. So they provide jobs for Tribal members.

They provide added economic benefit of reducing energy costs, right? If I offset that power cost, I don't pay the utility, I get to keep those funds in the community and reinvest them in the Tribal community. If it is operated by a Tribal utility, again, I am creating more jobs through that Tribal utility.

And you see this around the whole country. There has been a very broad geographic effort, from Washington State with the Spokane Tribe, down to the Seminole Tribe in Florida, and everywhere in between, a very robust diversification of renewable energy projects at the smaller scale level. And that is because everybody can do smaller scale renewable energy projects.

And so that has been critical. We have seen lots of new Tribes come out with energy economy opportunities for job training and putting Tribal members to work in installing solar panels and doing energy efficiency.

We have to operate and maintain those systems, so these are sustainable jobs. These aren't just 600 people building a big solar project and then, as I say, three guys and a bottle of Windex taking care of it later. So there is—

Ms. CASTOR. And, in fact, Chairman Baker highlighted that the Southern Ute have developed utility-scale solar that has reduced their dependence on fossil fuel.

So, Chairman Baker, why did you all make the decision to diversify your energy resources?

And, Chairman, I have run out of time, so let's—we will be sure to come back to you, so we will give you some time to think about

your answer on that. And I will have to go to Ranking Member Graves for 5 minutes.

Mr. BAKER. Okay. Thank you.

Mr. GRAVES. And, Chairman Baker, I think you were on mute as well.

Mr. BAKER. Yes, I was.

Mr. GRAVES. Hey, thanks again to all of you for participating today. I really appreciate you all's testimony.

Chairman Baker, you all have pursued, as the Chair just noted, both solar as well as conventional fuel projects that all result in net-zero emissions.

Can you talk a little bit about the importance of just innovation and innovative technologies in helping the Tribe achieve your, kind of, financial health and sustainability, baseload power for your Tribe?

Mr. BAKER. Yes. The Coyote Clean Power Project has the potential to positively benefit the Southern Ute Indian Tribe and the local community by providing clean, affordable, baseload power to the grid in part of the country where coal plants are continuing to be retired over the coming years.

Additionally, the Coyote Clean Power Project will be located on the Southern Ute Indian Reservation, creating employment opportunities in the community. Per Federal law, the project will be giving contracting preference for Indian-owned businesses and hiring enrolled Native Americans to support the project.

During the peak of the construction, it is anticipated that the project will create over 1,000 indirect and direct jobs. Post-construction and during the operational period, it is anticipated that the project would directly create two to three dozen direct jobs, providing local high-tech employment opportunities for the community, along with future indirect job creation.

So we are always looking for, you know, how can we implement job opportunities for our membership.

Mr. GRAVES. So it is job opportunities, and it is financial assistance to the Tribe as well.

There was an article from the Associated Press in June of this year that noted that there was a boom in Native American oil activity and how that potentially complicates what the Biden administration is doing.

If the administration comes in and tries to prohibit or stop Tribes from producing conventional fuels, and, as we have talked about, in some cases with net-zero emissions, what does that do to the Southern Ute?

You are on mute.

Mr. BAKER. Yeah.

Mr. GRAVES. You are good.

Mr. BAKER. Since the project consumes fossil fuels—why would the Southern Ute develop a project that consumes fossil fuels, given the concerns on climate change? First, we believe that all energy development has some type of environmental impact. And, when we evaluate projects, we look at the environmental and social impacts through the entire lifecycle of the project, which can include air emissions, climate change, water and land use, wildlife, waste generation, labor, et cetera.

The Coyote Clean Power Project utilizes natural gas, which we see as playing a big role in the overall energy transition due to the fact that it is readily available in the United States, has a lower carbon footprint than other types of fossil fuels, and, when coupled with innovative technology, can eliminate air pollutants associated with combustion and capture over 97 percent of the CO<sub>2</sub> generated from the project for sequestration.

The project is truly an innovative way to supply affordable base-load power to the grid while providing solutions to climate change we summarized into three buckets: Fossil fuels can be used cleanly. Fossil fuels still make up more than 80 percent of the energy consumed around the world. Carbon capture—

Mr. GRAVES. So, Mr. Chairman, it sounds like you all have your own process where you review, kind of, from beginning to end and look at it and determine, just holistically, if this is the right move for the Tribe. And that is a great process and, I think, something that doesn't discriminate against energy technologies.

President Sharp, I am curious—a couple things. One, there were some quotes from you earlier this year where you basically said you were going to, quote, “take Big Oil down.” Hearing from Chairman Baker about their ability to use conventional fuels in a way that is net-zero emissions, I am curious as to how those two things align.

Ms. SHARP. Yes. I really appreciate that question, because, in that context, I was very passionate about taking Big Oil down because, when you look at the scale of the global crisis that we are all facing, the public treasury is having to pay for it. And, every single day, Big Oil is emitting, polluting, and denigrating our environment with no consequence. There is no carbon fee.

And so that is my intent, that Big Oil should be held accountable for devastating our natural world and putting the price tag on the public treasury.

Now, with regard to any Tribal nation's ability and desire to build their own fuel sources and energy, we fully support that. And to reconcile those two things: We are in a period of transition. We need to transition away from fossil fuels to renewable energy. And there is a space and a window, an opportunity, and we support any Tribal nation's desire to unlock the energy potential within their own sovereign lands.

Mr. GRAVES. Thank you.

And thank you, Madam Chair. I just want to make note, the Biden administration ignored the Navajo Tribe whenever they asked for an appropriate buffer, and they put a ban in place. So the administration is not listening to Tribes.

In regard to President Sharp's comments, the reality is, for every 1 ton of emissions the United States has reduced, the global community has increased by 10 tons. And so it is not the United States.

I yield back.

Ms. CASTOR. Next we will go to Rep. Bonamici.

Ms. BONAMICI. Thank you to the Chair and Ranking Member and to our witnesses.

I want to note that the title of this hearing includes “Tribal Voices, Tribal Wisdom,” and I just know that, as policymakers, we

benefit greatly when we listen to Tribal voices and we heed the Tribal wisdom which our witnesses brought to this hearing today.

You know, many of the witnesses have spoken either in their oral or written testimony about the expertise of Tribal nations in natural resource management and the value of indigenous traditional ecological knowledge.

On November 15, the Office of Science and Technology Policy and the White House Council on Environmental Quality released a memo detailing the administration's commitment to elevating indigenous traditional ecological knowledge in Federal policymaking processes, and that includes the convening of an interagency workgroup. This workgroup will promote mutually beneficial partnerships between the Federal Government and Tribal communities on indigenous traditional ecological knowledge.

So I want to ask Dr. Thornbrugh, what would you like to see this working group consider as it prepares the guidance document for release next year? And what recommendations do you expect the guidance will ultimately offer?

Dr. THORNBRUGH. Thank you, Representative Bonamici.

The main things I would like to see, of course, is, you know, clear communication with Tribal nations, to, you know, respect the proprietary information around our Traditional Ecological Knowledge. You know, we are excited that it is brought higher to the forefront, but, as processes go, ongoing communication is so important.

And I want to also highlight President Sharp in terms of the continued importance of FPIC. You know, that this is knowledge that comes from our histories, you know, very much a part of who we are, so it is important to have the utmost respect for it but also our consent in how it is applied.

So I would just say, you know, in conclusion, just continuing that respect and regular communication. That way, if issues or concerns come up, they come up sooner rather than later.

Ms. BONAMICI. Thank you. That is very helpful.

President Sharp, welcome. It is very nice to see you again. I will always remember the beautiful traditional invocation your son provided when you were here at the Capitol previously.

I want to thank you for the important contributions of the National Congress of American Indians and what those contributions meant to this committee's Climate Action Plan.

Tribal feedback on the Climate Action Plan, as well as comments in your testimony, reflect the challenges that Tribal nations and intergovernmental Tribal groups face in accessing Federal programs and funding. And you mentioned that in your testimony again today.

Tribal entities like the Columbia River Inter-Tribal Fish Commission, or CRITFC, in the Pacific Northwest have told me about some of those challenges they have had in accessing Federal grants and programs.

So, President Sharp, how can we make sure that Tribal nations and entities have equitable access to Federal energy and climate programs? And how does maintaining the status quo—or how would maintaining the status quo undermine our collective response to the climate crisis?

Ms. SHARP. Excellent. And before I begin to answer the two questions, I do want to touch back on the previous question which I answered.

When you look at the scale of the climate crisis facing this country and this world, relying almost entirely on the public treasury, appropriation through state capitols, state legislatures, and Congress, is simply not enough. We do have to hold Big Oil accountable and those who are directly responsible.

But, of the limited public treasury, it is important that Tribal nations have a steady and a secure source of multiyear funding. It is very difficult to plan. Climate resiliency projects are multiyear, if not multigenerational. So it is critically important that we do have a reliable and steady source of revenue as Congress works to hold those who are accountable responsible.

And I would also suggest, in a lot of conversations, there is a discussion of public-private partnerships to fund climate related impacts. So anything Congress can do to incentivize public-private partnerships, to hold Big Oil accountable to pay their fair share and price for centuries of devastation, and creating a framework for us to be able to access those directly from congressional appropriations would be incredibly helpful.

Ms. BONAMICI. Thank you.

And what would be—how would it undermine the collective response if you did not have access to that funding?

Ms. SHARP. It would undermine the response in that Tribal nations are already left vulnerable with little to no resources, as is evidenced in the U.N. Commission on Human Rights that was—Civil Commission on Human Rights that was delivered to Congress. We are chronically underfunded.

And so, without the added support of addressing climate change, you take that away—and the impact of COVID-19 has revealed just how critically vulnerable Tribal nations are. So we would see our lands, our resources, our territories, even our traditional foods and plants disappear. And they are already disappearing. So it would prove to be devastating for Indian Country.

Ms. BONAMICI. Thank you.

And I am over time, but I just want to note as I yield back, I hope you stayed safe during the atmospheric river events in the Pacific Northwest. We had some serious flooding recently. Take care.

Ms. SHARP. Thank you.

Ms. BONAMICI. I yield back, Madam Chair.

Ms. CASTOR. Next up, Rep. Palmer.

You are recognized for 5 minutes.

Mr. PALMER. I thank the Chairman.

And I thank the witnesses for being here.

Chairman Baker, I am hopeful that one thing we can learn from the Tribes is that climate has a history. I keep bringing this up. I keep hearing a misappropriation of historical data and, in some cases, scientific data.

And my colleagues on the committee have complained since I have been on it that fossil fuels are causing all the droughts that the world faces. And my question is, if the use of fossil fuels is causing current droughts, what caused the droughts that took place

in the southwestern United States in the mid-13th century that resulted in the disappearance of Tribes like the Anasazis?

Do you have any idea?

I believe you are muted.

Mr. BAKER. Yes. I don't have any idea, but we see that all around us in our southwest region, where, you know, again, we are close to the Mesa Verde ruins, and the history tells us, you know, how they lived, how they survived. And, you know, we see certain—we hear stories of the water levels that were higher back in the day. There was plenty of water. And, today, this whole region is drying up in our area. We are in a drought, high drought, for the year. Our lakes in the area are really, really drying up.

So, with like anything else, I guess just like our past ancestors, you have to adapt and figure out a way to survive, whatever it is, at all means and all costs. And, you know, right now, that is a big issue for us again, the water, the drought. What is it going to look like in 5 years?

So we are always—our teams are always looking for answers.

Mr. PALMER. Yeah.

Well, actually, Professor Scott Stine, who spent decades studying tree stumps in parts of the Sierra Nevada, found that the past century has been among the wettest in the last 7,000 years. He also notes that the tree ring data shows that California had a 240-year drought that started in 850 AD, over 1,000 years before fossil fuels, power like coal plants and oil were used.

And my point is—and that includes the Mississippian culture. Where I grew up, I lived near mounds near Hamilton, Alabama. There are mounds south of Tuscaloosa and near Florence, Alabama. There was a thriving culture, Mississippian culture, that disappeared because of a major drought that occurred around 1300, 1350.

And the point that I am trying to make is that we spend all this time attacking Big Oil, and I think it is because people have self-interest involved. The science doesn't support a lot of what is being said.

But the historical record, the geologic record, shows that the climate changes all the time, for a number of reasons. And the indigenous peoples of America—and I have Native American background, as well, that I am very proud of—didn't have the technological ability to develop the natural resources to mitigate and adapt to the climate change. They had to migrate. And that is what happened with the Anasazis. I think they assimilated eventually into the Navajo Tribe.

But we keep focusing on these things that—even some of the top scientists that this committee has brought in have admitted that if we completely eliminated all CO<sub>2</sub> emissions, it wouldn't stop climate change.

We have imposed restrictions on Native Americans, particularly on the reservations, that, as of a few years ago, the Energy Information Administration put out data that showed that 14 percent of the Native Americans on reservations had no access to electricity.

Chairman Baker, do you think it is right for the Federal Government to deprive the Tribes of the right to utilize the natural re-

sources that exist on their Tribal lands, to develop a power plant if they want to, a hydroelectric plant, natural gas, or even oil?

Because there are literally reservations where people are suffering from energy poverty and living in poverty because you haven't been able to do that.

Mr. BAKER. No, I don't think it is right at all, you know. It is very, you know—it is just not fair for all Native Country all around, all Indian Country.

But, you know, again, you know, for us, we are looking at self-determination as far as what can we do, how do we move forward. You know, we never stop. We have great teams in place. We collaborate with others. We do a lot of research as we move forward, no matter what the issue is.

And not only when we talk about, you know, the energy and all that, our Tribe, we also diversify in many other aspects—real estate, just many things out there in this world—we are always thinking; we are always moving. We can't focus on just one.

But when we are focused on one, like this clean energy—you know, we know CO<sub>2</sub> is a greenhouse gas, you know. These types of things, we are never going to stop moving forward and sharing that experience with other Tribes. When we talk about meeting and coming together, we do have Tribes that want to meet with us and come and ask us, how did you do it? And we are willing, more than willing, to share that story with anyone who wants to come and meet with our team.

Mr. PALMER. I congratulate you on your commitment to your people.

Mr. BAKER. Thank you.

Mr. PALMER. I yield back.

Ms. CASTOR. Next up, Rep. Escobar, you are recognized for 5 minutes.

Ms. ESCOBAR. Thank you so much, Madam Chair, for bringing us together in this hearing, and I would also like to express my gratitude to the panelists for sharing their wisdom and for participating with us here today.

I am so proud that we have the Ysleta del Sur Pueblo in El Paso, which is the oldest Tribal community in the State of Texas, and the Tigua Tribal Council is the oldest government in the state as well.

The Pueblo, just like most other Native groups, continues to depend on the land and its resources not just to further their way of life, but also, as part of their spiritual practices. But, of course, the climate crisis has completely changed what is available to them. And they have shared their concerns with me about drought and lack of access to water and the dire impacts that it has had on them and their ability to preserve that important way of life.

I had the privilege yesterday of meeting with Governor Silvas from the Tigua Tribe, and one of the concerns he shared with me is the inflexibility that exists with government funding that is tied to the Tribe.

And so, I actually want to explore that a little bit so we can better understand what we can do in order to provide the flexibility necessary so that the resources, especially as they relate to addressing the climate crisis and being able to fully utilize them to

avert disaster, I would like to explore what some of those impediments and roadblocks have been for some of our panelists.

So, President Sharp, in your testimony, you had mentioned the need for the Federal Government to provide funds directly to Tribes and through multiyear grants. Could you share with the committee how these changes would accelerate projects on the ground? And, if possible, is there an example you can think of that you can share with us?

Ms. SHARP. Yes. I really appreciate the question, because the issues you raise affect every Tribal Nation in the United States that are on the front lines of dealing with climate change.

And I will give you an example from my community. In the 1950's and 1960's, we had millions of sockeye blueback salmon return to the Mighty Quinault, and the Quinault River is just out my window here, millions. And that was from when time began, from time memorialed. The year I got elected in 2006, we only had 3,000 blueback return. And our scientists have been doing a tremendous amount of work in adapting and mitigating those impacts, constructing engineered logjams, et cetera. But we are at a place now where we don't even have the resources to really understand the scope of the problem, and without Tribal nations, having a direct source of funding would provide us with the capacity to begin to do some of the identifying of the problem, and then based on identifying the science and having the capacity to do that, then build out adaptation and mitigation strategies. We don't even have the resources to fully wrap our minds around all of the scientific implications of what is happening.

So if we had a dedicated source of funding, we would be able to clearly identify the challenges that our communities are facing, identify the goals and objectives related to climate resilience, and build a point to our partners, whether it is the Federal Government and agencies, state, or even the private sector. But until we have the resources to really understand the scope of our challenges, we are just simply putting out—literally putting out fires.

Ms. ESCOBAR. Thank you so much.

Ms. THOMAS, what are some of the other roadblocks that make it difficult for Tribes to access Federal funds for clean energy and resilience, in particular? And how would you recommend we fix them?

Ms. THOMAS. Thank you very much.

So being a former Fed and having worked on policy and programs of the Department of Energy, the primary challenge around accessing Federal support is the multiple silos that exist, right. There is a great number. I think, by our last count, there were about 75 Federal programs across nine agencies that could be leveraged for energy development, for energy efficiency, for weatherization, whether it is LIHEAP at HHS, or the Weatherization Assistance Program at DOE, or the EDA program, Economic Development Administration, Department of Commerce.

So aligning Federal programs, aligning them in such a way that gives Tribes the flexibility and the—not just the resources, but really the flexibility in leveraging those resources.

And so, that is a function of mostly statute, but also regulation and other guidance that the Federal agencies have implemented.

And so, a good starting point would be, much as the President has just announced, the Task Force Around Tribal Consultation, additional task forces around how to make the Federal programs more accessible to Tribes and Tribal communities as they are trying to put together and piece together Federal funds that help do.

As I mentioned, a microgrid project can be a \$20 million project. So I can go get that money from six or seven different agencies, but it is a very challenging and daunting process to do that.

Ms. ESCOBAR. Thank you so much.

Madam Chair, I yield back.

Ms. CASTOR. Thank you.

Next up, Rep. Huffman, you are recognized for 5 minutes.

Mr. HUFFMAN. Good morning, Madam Chair. And thanks so much for this hearing. And welcome to our witnesses.

Ranking Member Graves, of course, piqued my interest with his opening remarks about, you know, a Wright brothers' moment, a breakthrough on carbon capture utilization and storage using natural gas to push electricity onto the grid in a net zero way.

And, you know, as I was trying to follow the testimony, I was also digging into, you know, whatever information I could find about this, and, you know, my mind remains open to any technology that can help us achieve zero emissions and meet our goals. But I am not sure that this really is the Wright brothers' moment from what I can gather about this pilot project in Texas. And I do want to ask you a little more about your larger project, Chairman Baker, using the same technology because I am curious about it.

But from what I can gather, this at best is a more efficient way of creating a cycle that burns natural gas and captures the CO<sub>2</sub>, but we haven't yet figured out what to do with that CO<sub>2</sub>. And it looks like it is just going to the same old thing, enhanced oil recovery.

So I think you are taking great liberties with the term "net zero" when you are talking about burning natural gas and then using the CO<sub>2</sub> that you can mostly capture through that process and then just going out and developing more oil to be burned in cars and other fossil fuel uses. That is not a climate solution. That is just oil and gas business as usual.

And so, I remain pretty skeptical, but let's continue the conversation for sure. And the problem I have with representing this as a breakthrough is that right now, adding new renewables to generate electricity is actually cheaper than natural gas electricity that doesn't capture the carbon. So you add in the costs of carbon capture, and then all of the uncertainties about what you do with that CO<sub>2</sub> after you capture it, no one yet has been able to figure out a way to safely and reliably store it so that it doesn't get into the atmosphere. There is just reason for skepticism, I believe.

And so, let me ask you, if I could, Chairman Baker—and I applaud you for the solar project that you have pursued and the leadership you are showing in trying to develop clean energy—as you look at expanding the use of this technology, what are you going to do with the CO<sub>2</sub>?

Mr. BAKER. Okay. Thank you for the question.

Our plan is to store the CO<sub>2</sub> in the ground. And also we don't develop oil on the reservation, you know. We do a lot outside the

reservation. As we have grown, our energy department, you know, we are all over the place, not just strictly on our reservation. As well as the oil, we don't do that on our reservation, it is all natural gas. But our plan is to store the CO<sub>2</sub> in the ground.

Mr. HUFFMAN. Have you identified a place and demonstrated that you can safely store it over the long term without leakage and other problems?

Mr. BAKER. Could you repeat that question?

Mr. HUFFMAN. Yes. Have you found a place to safely store it without leakage or other problems, or are you just going to have someone else take care of that?

Mr. BAKER. Okay. I am off mute. I was lost a second.

Okay. You know, right now, that is kind of like confidential information as our team moves forward. I think we are still working on it, and we are not saying that we do not have the answer. But as anything else, we are progressing toward that. I am sure once we develop that and come up with a plan—you know, because, again, like we have said from day one, we are always looking out to protect our reservation, our homelands, you know, where it is within our area and all that. But we don't have that information that our team is working on. It is confidential at this point because we are not yet at the finish line. We are still trying to develop it and always doing things in the right way, not just for our reservation but for the whole earth as well as our sister Tribes across the country.

Mr. HUFFMAN. Okay. But you are not just going to pipe it off somewhere to be used for enhanced oil recovery?

Mr. BAKER. No. That is not in the works yet. You know, again, we don't have that answer. We are looking at various opportunities, and what is the right way? What is the best way? Again, at times, but it is possible to do that if you find the right, you know, mechanism of how that can go, where it can go in a safe manner. But, again, we are still, you know, working on all of these issues because, again, we don't want to present something without all of the facts, looking into it and knowing that.

Mr. HUFFMAN. I appreciate that, Mr. Chairman. And I really do appreciate your leadership on these issues and what you are trying to do for your Tribe. But, as with so many other instances where we have heard of a great promise of carbon capture utilization and storage, when you ask the hard question, it is not quite ready for prime time. And, meanwhile, renewables are cheaper than natural gas. So I hope to keep our focus there.

And with that, I yield back.

Ms. CASTOR. Next up, Rep. Crenshaw, you are recognized for 5 minutes.

Mr. CRENSHAW. Thank you, Madam Chairwoman.

To Chairman Baker, your answer can simply be, we can do whatever we want because of Tribal sovereignty. So that can be your answer.

Let's debunk a couple of things. No, renewables are not cheaper than natural gas. That is complete nonsense, complete nonsense. They are only cheaper because they get massive subsidies to make them cheaper. There is not a single manufacturer of solar panels or wind turbines or generators that I have talked to that say they could do this in an open and free market.

Oh, but oil and gas gets subsidies, too. That is what they say. Lies. Another lie that needs to be debunked. There are no direct tax credits. There are no direct subsidies to oil and gas.

Here is another lie that needs to be debunked: Carbon capture technology is not ready for market. Lies. Illinois is starting a project. Chairman Baker is talking about this project here in Colorado. Houston has already piloted it, and we just hooked it up to the energy grid. It is profitable. The only thing they used is a 45Q tax credit.

These things are profitable, they work. And in some cases, they are carbon negative because the technology exists—and it is well developed technology—that pipes that well underground—

Mr. HUFFMAN. Madam Chair—

Mr. CRENSHAW [continuing]. And saves it for 10,000 years.

Mr. HUFFMAN. Madam Chair, point of order. Point of order, Madam Chair.

You know, the gentleman is welcome to disagree with me and make points, but I would ask that his words be taken down for accusing me of lying.

Mr. CRENSHAW. Oh, well, your hurt feelings are noted.

If I may continue.

Ms. CASTOR. Gentlemen, wait.

So you are not—would you like to yield to Mr. Huffman, Mr. Crenshaw?

Mr. CRENSHAW. No, I will not yield.

I would like to yield to Mr. Baker.

Chairman Baker, do you think that a person can be in the business of natural gas and also care about the environment?

Mr. BAKER. Yes. As I have always mentioned, as I mentioned, we as a Tribe, we are caretakers of the land. We have always been raised that way. No matter where we are, we are always going to have our land come first and be careful in, you know, how it affects our neighbors.

Mr. CRENSHAW. And Tribal lands are not exempt from this natural gas tax that is going to be in the reconciliation bill. Any member of your Tribe that operates a facility that produces, transmits, processes, or otherwise touches natural gas will be subject to a tax as assessed purely by the EPA.

So how will this harm the members of the Southern Ute Tribe?

Mr. BAKER. I am not sure exactly how that would come because, again, like I said, we have so many other things that we work on that benefit our Tribe, not just oil and gas, you know. And, again, the lack of snow, lack of rainfall, you know, a lot of that does cause the droughts that are in our area.

But, again, that is a great question. I am not the technical expert on this technology, but in the room, Kourtney Hadrick, Operating Director of our energy, and Coy Bryant, and the government should not tax our resources.

Mr. CRENSHAW. Right. I agree with that.

And to address this—again, back to the general discussion of natural gas. Again, the facts are that natural gas and the fracking industry and the technology associated with that is the—it is almost 100 percent responsible for our reduction in emissions in this country back to 1992 levels. There is no disputing that. There is no dis-

puting the fact that if we were to replace coal-burning—coal-fired power plants around the world with our U.S. natural gas, you would have more reduction in emissions than in any other solution that we are talking about here.

And, look, to Mr. Huffman, I don't mean to call you a liar, and I will just apologize for that. But what you are saying is deeply, deeply untrue and misleading and, frankly, probably damaging to our mutual goals of reducing emissions in this country and around the world. That is the truth. That is the truth. And the facts back this up.

The facts back up that these technologies, carbon capture technologies are indeed ready for market. It is happening right before our eyes. And we can refuse to acknowledge it. We can cover our ears and cover our eyes and pretend we don't see it and pretend that renewables are cheaper and that they are more effective and that they are reliable. We can pretend all that. We can write a fiction novel about it. But none of it will be true. It will never be true.

And to oversubsidize those technologies, renewable technologies to the detriment of reliable clean technologies, like carbon capture and nuclear energy, is insanity. It is insanity, especially at a moment around the world where people are having trouble keeping the lights on. That is a very, very bad place to be in.

I yield back.

Mr. PALMER. Yield the balance of his time?

Mr. CRENSHAW. Yes, I will.

Mr. PALMER. I thank the gentleman.

The National Carbon Capture Center is in my district, and I would be happy to host the committee if they want to visit that. We are sequestering carbon and concrete blocks and other materials. There is no leaking or leaching. And I do think that it might be good for the committee to have an expanded view of what is actually happening in regard to that technology.

And I thank the gentleman, and I yield back.

Ms. CASTOR. Well, thank you for that offer, Mr. Palmer.

We all know that we do—there is a role for carbon capture and storage when it comes to industrial processes, like concrete and steel. But, as I think Mr. Huffman makes a very strong point, it is still unproven when it comes to oil and gas.

So next we are going to go up to—go to Rep. Casten, you are recognized for—oh, Mr. McEachin is going to go first. We recognize Rep. McEachin for 5 minutes.

Mr. MCEACHIN. I am sorry, Madam Chair. You caught me off guard. I thought I was after Rep. Casten, but I will go ahead since he has been kind to me today.

Madam Chair, first of all, thank you for convening today's hearing, and thank you to our witnesses for joining this hearing.

Across the nation, communities are feeling the impacts of climate change and, of course, that includes Native American Tribes and indigenous people in my district. Like other historically underrepresented people, indigenous groups have been disproportionately impacted by the impacts of climate change.

According to experts, this is part—it is attributable to the historic wrongs that led to Tribal lands' dispossession and forced migration to less economically productive lands.

As I have said before, access to clean air, clean water, and a healthy environment should not be a luxury. And as we have seen, we need to make sure that as we go forward we address the climate crisis to move towards a clean energy future.

The Select Committee has made recommendations as to how to ensure this is the case, and President Biden has committed to doing so as well through the Justice40 Initiative, a goal delivering 40 percent of overall benefits of the relevant Federal investments to disadvantaged communities, including Tribal communities.

I look forward to working with my colleagues and with the administration to ensure that we follow through on this promise and that our Tribal nations have the resources and capacity to address climate threats and take advantage of the opportunities presented by the ongoing clean energy transition.

This question is for all the witnesses. And I will just ask that you take it in the order that you—that you answer in the order that you gave your testimony.

You know, when drafting the Environmental Justice for All Act, it was critical for me to get feedback from a variety of stakeholders on the legislation, including Tribal and indigenous leaders.

As new policies are created and grants are distributed from the infrastructure package, can you please clarify how you feel the Federal Government can best ensure meaningful stakeholder engagement, including the types of engagement that would be most helpful?

Ms. SHARP. Thank you. I will go first.

I really appreciate not only the question but that background because it is so important for everybody to understand and recognize the place of not only indigenous peoples but communities of color as disproportionately impacted.

The one thing that I could offer and suggest that would be very helpful is to formalize the engagement of Tribal nations on climate policy. As Pilar mentioned, we have to deal with various silos within the Federal Government. But to consolidate and be able to provide a national climate strategy that is both informed as well as engaging Tribal nations at every level would be helpful.

And I can say, as representing 574 Tribal nations, that we are prepared. We are ready. We just need to have those multiple points of opportunity to bring not only our traditional knowledge, but our innovation and the things that we are doing across Indian Country.

So we welcome any opportunity, and I thank you for that question.

Mr. MCEACHIN. All right. I have less than 2 minutes. Please continue, folks.

All right. Ms. Thomas, would you answer next then, please?

Ms. THOMAS. Sure. I think. So there is lots of ways to have—lots of methods for engagement. And, you know, you have your national Tribal organizations, such as NCAI. You have the regional organizations, such as USET, where Casey works, and those all over the country. The biggest challenge as well, though, is with direct Tribal communities. And as much as there is a government-to-government relationship that the Federal Government has to uphold at all levels, sometimes the voices of individual Tribal members and Tribal communities, those have to be brought to the table as well.

So there is a multilevel challenge that the Federal Government has, but as with anything, you know, the big thing is how to eat an elephant; one bite at a time. You have just got to get started. So, you know, we have got to do some—maybe some things a little bit differently, and hopefully some of the models that this administration is putting together will be a good way to do that.

We have got to find natural allies and partners who are in the same boat, and try and create partnerships across communities of color, across organizations, and across levels of government. And encouraging Tribes, for example, to engage with their cities and counties, as well as with state governments, is another way to come at this.

Mr. MCEACHIN. Well, thank you for those answers.

Dr. Thornbrugh, and to the Chairman, I am not going to try to get you all to answer in less than 20 seconds. But I would ask that you just send us an answer to that question, if you would.

Mr. BAKER. Okay.

Mr. MCEACHIN. It is a sincere question. And we have a lot of work to do to make sure we have the right communication between, obviously, Tribal and indigenous peoples, but all folks who have been disadvantaged by the climate crisis.

Madam Chair, I yield back.

Ms. CASTOR. Thank you, Rep. McEachin.

Next we will go to Rep. Casten. You are recognized for 5 minutes.

Mr. CASTEN. Thank you so much and thanks to our witnesses.

I want to start just by apologizing. It breaks my heart that my colleagues on the other side of the aisle have seemed to have climbed in a time machine this morning and gone back to 1995 and said that the climate is always changing, the fossil fuel industry isn't subsidized, that people who would suggest that have special interests. My goodness. We had a \$100 billion of damage this year, real people who lost their homes from fires and floods, and we are going to talk about tree ring data?

The International Monetary Fund says that the world subsidizes the fossil fuel industry by \$6 trillion a year, \$650 billion in the U.S. We are going to call those lies? Show some respect, for this committee, for this science, and for the planet we all call home. My goodness.

I want to try and end on an optimistic note, but I want to start, President Sharp, with a question for you. And it is a hard question for me to grapple with, and I am hoping that you have got more wisdom than me on this.

For not all of the Tribes in our country, but for an awful lot of them, the lands they live on are lands that they were forcibly relocated to. We moved them off productive land. We moved them to more marginal land, and an awful lot of that land is now areas that, in many cases, is most at risk of climate change. Areas that are harder to obtain water, more risk of drought. I see you nodding your head.

My question for you is, number one, are the programs that we have available in this country for adaptation sufficient for those communities, and can they get access to them? And, number two, to the extent that they are—that those folks are living in areas

where the best thing to do is to help folks relocate to a more productive area, how can we be most culturally sensitive for communities that have been told by the Federal Government to move before and may be a little bit skeptical?

And I would welcome your thoughts on both of those questions, with the hope that I can end with a little bit of time for Dr. Thomas before we are done.

Ms. SHARP. Yes. Thank you.

And to your first question, adaptation funding is simply not enough. And we need additional resources to begin to not only adapt with new and emerging science and the things that are readily available, but the centuries of knowledge that we have with respect to adaptation and cultivating and developing that with our elders is critically important.

To your second question, yes, how can we make those adjustments and moves in a more culturally sensitive way. But the one way to do that is to acknowledge that Tribal nations should have a decisive say, through free prior and informed consent, on all Federal actions. When the United States or any other government can take unilateral action without our consent, it puts us in an imperiled position.

So those are the two suggestions that I would offer.

Thank you.

Mr. CASTEN. Thank you.

And moving to Dr. Thomas, and I want to try to end on a more uplifting note. You know, we talk a lot about the pain of climate change, and I think sometimes we talk too little about the economic gain, notwithstanding what some of my colleagues seem to suggest. If you invest in things that have no marginal operating costs, you make a lot of money. It is pretty awesome. Actually, there is reasons why the private sector likes this.

In your former capacity as the Deputy Director of the DOE's Office of Indian Energy Policy, I wonder if you could comment on, we have all of these programs to try to make sure that we are investing dollars in the areas where we have the maximum opportunity for renewable resources, where the wind resources are, where the solar resources are. You talked a little bit about that in your opening testimony.

Are the programmatic ways that we get money into Indian Country sufficient to make sure that those monies flow to the optimal places, notwithstanding where the land is and who lives on it, or are there things we can do to tweak and better accelerate this transition to a cleaner and cheaper future?

Ms. THOMAS. So, as I had mentioned before, the biggest challenge is the silos within the agencies themselves and across agencies and being able to leverage as much Federal support as possible, whether it is technical assistance or financial assistance.

Between rural development in our U.S.'s programs, the Department of Energy's programs, the Department of the Interior's programs, piecing these all together can be a huge challenge. Everybody has got a different calendar. Everybody has got a different set of criteria for what kind of projects work.

The commercial scale projects, the two commercial scale projects, didn't use any Federal money from a grant standpoint. They used

tax credits, but those projects are so big that the small amounts—the relatively small amounts of Federal money don't really help with the commercial scale.

Now, financial assistance, yes. And these smaller scale projects where Tribes can use their wind and solar for themselves, that is really where the Federal support becomes more impactful, and you see less of the private sector, at least right now, being interested in supporting, you know, a 20-kilowatt solar project. So the Federal support becomes more important there.

So, really, the big opportunities for the administration, I think, as with any administration, is how do we better coordinate amongst ourselves? And part of that really should start with asking the Tribes who are trying to develop projects, what do you need from us, and what can we do, from the Federal Government perspective, to support that effort?

Mr. CASTEN. Thank you.

I see I am out of time. I really appreciate your response.

I yield back.

Ms. CASTOR. Well, thank you very much.

As we close out this hearing, I would like to take—provide the witnesses with 1 minute each to give us some closing advice and wisdom. And let's go in reverse order and start with Ms. Thomas, 1 minute for closing words to us.

Ms. THOMAS. So I usually just try and end, usually when I talk about this, with two key concepts: One, Tribal sovereign authorities. Tribes aren't going to be able to accomplish most of what they need to do from a clean energy and from a climate resiliency standpoint if they don't have the Federal Government's support for them exercising their own sovereign authorities for what makes sense for the Tribal community.

And then, secondly, I do think the Federal Government could be more ambitious around supporting mass deployment of whatever technology works for the Tribes around climate resiliency. And that is going to require putting our shoulder to the grindstone to really figure out what is it we can do. We can plan. We can assess. And President Sharp is right, we still need more money for that. But in the end, we have got to actually do something to protect ourselves, and so that is going to require more Federal Government coordination in that regard.

Ms. CASTOR. Dr. Thornbrugh.

Dr. THORNBRUGH. Thank you.

So, first and foremost, it is important for Tribal nations to be leaders and to guide Traditional Ecological Knowledge initiatives.

I also want to highlight direct funding for Tribal nations for climate change adaptation and resilience. Competitive funding puts a burden on the Tribal nations and is not representative of the trust and treaty obligation.

Also, I want to mention, it is important for early consultation with Tribal nations. We need the time to look at initiatives, and understand how they impact our Nation and communities in that way, so early consultation.

I just want to mention a couple of brief things on the climate change side.

You know, we recognize that climate has changed throughout geologic time. In the northeast where I live, it took 10,000 years for the glaciers to recede. We are looking at changes within 100 years, or within lifetimes.

Thank you.

Ms. CASTOR. Mr. Baker.

Mr. BAKER. Thank you.

And I want to thank everyone for, you know, participating in this. It is some good discussion.

I believe that everyone on this call contributed to emissions in our atmosphere. We aren't here to debate climate change. We are here to promote working together with different views and open minds to put real-world solutions in place as we move forward, and we advocate for our sovereignty and work nation to nation around the world to solve the problems, you know, to mention, because who knows best about their own homelands than the Natives and their work in their own reservations? We know what we have got to do as caretakers of the land.

And also we would like to invite anyone who would like to come and tour what we are working on at our reservation here at Southern Ute.

So thank you for allowing me to speak today in regards to this testimony.

Ms. CASTOR. Thank you.

And President Sharp.

Ms. SHARP. Yes. [Speaking Native language.]

My 1 minute, I would just like to encourage every member of the committee to continue to advance, as leaders of this country, with bold and courageous and decisive climate action. We are running out of time.

And I would like to leave you with this thought. From my perspective, there is no way we are going to be able to negotiate, legislate, or buy our way out of this climate crisis. We have to return to our traditional life ways that the indigenous peoples of this continent have exercised for millennia. And that is my one takeaway from COP26. When I worked with indigenous peoples from all over the world, it is very clear we do manage 80 percent of the world's biodiversity, and it is only with us at the table to bring that timeless knowledge to restore balance to this planet. We can't take selective science to advance political objectives that benefit multinational corporations who seem to suggest that the health and future of our planet, and even humanity, is reduced to nothing more than a cost of doing business.

We have to be bold, courageous, speak truth, and speak honest truth as we navigate through this crisis.

[Speaking Native language.] Thank you.

Ms. CASTOR. Well, thank you to all of our witnesses for your Tribal wisdom and advice to the Congress. We certainly need it.

So I will go to Representative Graves for a unanimous consent request.

Mr. GRAVES. Thank you, Madam Chair.

Madam Chair, I ask unanimous consent the statement from the Navajo Nation regarding the Biden administration's actions on Chaco Canyon be included in the record; secondly, an article re-

garding the NET Power facility on dispatching zero emission natural gas generated electricity to the grid; and then, lastly, an analysis by C2ES, which is a Pew associated group, that make note that, I believe, the former head of it is now working for John Kerry in the administration, that has an analysis of carbon capture and sequestration that lists a number of successful projects over decades.

[The information follows:]

**Submissions for the Record**  
**Representative Garret Graves**  
**Select Committee on the Climate Crisis**

**November 18, 2021**

ATTACHMENT: Navajo Nation (2021 November), “Navajo Nation Opposes Withdrawal for Development at Chaco Canyon, Tribal Consultation Ignored.”

The press release is retained in the committee files and available at:  
[https://www.navajonationcouncil.org/wp-content/uploads/2021/11/Chaco\\_Opposition\\_2021.11.16.pdf](https://www.navajonationcouncil.org/wp-content/uploads/2021/11/Chaco_Opposition_2021.11.16.pdf)

ATTACHMENT: NET Power (2021 November), “NET Power Delivers Electricity to Grid in Major Technological Breakthrough.”

The article is retained in the committee files and available at:  
<https://www.prnewswire.com/news-releases/net-power-delivers-electricity-to-grid-in-major-technological-breakthrough-301425894.html>

ATTACHMENT: C2ES, “Carbon Capture.”

This topic overview is retained in the committee files and available at:  
<https://www.c2es.org/content/carbon-capture/>.

Ms. CASTOR. Thank you, Rep. Graves.

And as I close out the hearing, I do want to say that I know that members are strong advocates for their communities back home and their policy positions, but members like Representative Crenshaw, his remarks today really crossed the line when he spoke in terms of lies and liars. That violates our rules of decorum here in the House, and it was appropriate for him to apologize to Representative Huffman today, and I am glad he did that, especially when it comes to an—and I will offer this as a unanimous consent request, his assertion that there are no—oil and gas doesn’t receive subsidies from the U.S. Government.

So, without objection, I will enter into the record a September 2021 report from the International Monetary Fund titled “Still Not Getting Energy Prices Right: A Global and Country Update of Fossil Fuel Subsidies,” and finding that globally, fossil fuel subsidies were \$5.9 trillion in 2020 as Rep. Casten mentioned.

Also, an October 2021 resolution from the National Congress of American Indians titled “Amending and Updating NCAI Resolution SD-15-024 in Supporting Tribal Disaster Resilience and Climate Change Principles,” and an October 2021 resolution from the National Congress of American Indians titled “Additional Tribal Disaster Resilience and Climate Change Common Principles.”

[The information follows:]

**Submissions for the Record**  
**Representative Kathy Castor**  
**Select Committee on the Climate Crisis**

**November 18, 2021**

ATTACHMENT: National Congress of American Indians (2021 October). "Amending and Updating NCAI Resolution #SD-15-024 and Supporting Tribal Disaster Resilience and Climate Change Principles."

The resolution is retained in the committee files and available at:  
<https://ncai.assetbank-server.com/assetbank-ncai/assetfile/176.pdf>

ATTACHMENT: National Congress of American Indians (2021 October). "Additional Tribal Disaster Resilience and Climate Change Common Principles."

The resolution is retained in the committee files and available at:  
<https://ncai.assetbank-server.com/assetbank-ncai/assetfile/177.pdf>

ATTACHMENT: Parry, I., Black, S., and Vernon, N. (2021 September). *Still Not Getting Energy Prices Right: A Global and Country Update of Fossil Fuel Subsidies*. International Monetary Fund.

The report is retained in the committee files and available at:  
<https://www.imf.org/en/Publications/WP/Issues/2021/09/23/Still-Not-Getting-Energy-Prices-Right-A-Global-and-Country-Update-of-Fossil-Fuel-Subsidies-466004>

Ms. CASTOR. Without objection, all members will have 10 business days within which to submit additional written questions for the witnesses. I ask our witnesses to respond promptly as you are able.

Thank you all. And the committee is adjourned.

[Whereupon, at 11:04 p.m., the committee was adjourned.]

**United States House of Representatives**  
**Select Committee on the Climate Crisis**

**Hearing on November 18, 2021**

**"Tribal Voices, Tribal Wisdom: Strategies for the Climate Crisis"**

**Questions for the Record**

**The Honorable Fawn Sharp**  
**President, National Congress of American Indians**  
**Vice President, Quinault Indian Nation**

THE HONORABLE KATHY CASTOR

**1. President Sharp, the Build Back Better Act contains incentives like tax credits for new and used electric vehicles and investments in electric vehicle charging as well as rebates for residential appliance and equipment electrification. Would you agree that these types of investments can help reduce demand for oil and gas and reduce exposure to volatile fossil fuel prices?**

Thank you for your questions, Chair Castor. Incentives are a step in the right direction for promoting widespread use of electric vehicles, however there are significant obstacles for Indian Country. Large parts of Indian Country are rural, and thus underserved by electrical grids and lack of charging station infrastructure. Additionally, due to the rural nature and long distances among many Tribal communities, many Tribal citizens require electric vehicles with greater battery capacity and storage. Further, the cost for these vehicles, even with the current incentives, is prohibitive for many if not most Tribal citizens. Lastly, it's important to know where the

electricity for these vehicles is being sourced from. Electric vehicles are not as beneficial if the electrical grid they are charged from is still powered by fossil fuels such as coal, or destructive hydroelectric dams.

**2. President Sharp, could you describe some of the jobs that could be created in Tribal Nations as a result of investments in clean energy?**

There are several Tribal Nations employing their own citizens in their clean energy initiatives. The Moapa Southern Paiute Solar Project, located in Clark County, Nevada, co-owns a solar project with non-Tribal energy entities to create wages and benefits for Tribal citizens. Currently, the project provides over 115 construction jobs for Tribal citizens, with hopes to provide employment to at least 600 Tribal citizens throughout the lifetime of the project through construction and operations positions.

**3. President Sharp, should Congress explore strategies to reduce the carbon footprint of the manufacturing of climate solutions like wind and solar energy while supporting the transition to a clean energy economy?**

Yes, Congress should explore strategies to reduce carbon emissions in all sectors. When exploring strategies to reduce the carbon footprint, it's important to consult Tribal Nations to ensure any climate projects are not happening on culturally significant areas.

**4. President Sharp, do you believe that technologies like grid-scale storage and demand response can help achieve a more flexible grid that can integrate higher levels of renewable energy as we phase out unabated fossil fuel-fired electricity generation?**

Yes, short to long term storage technologies will be vital to ensure grids dispense uninterrupted electricity to the end users. Grid-scale storage is part of this solution.

**5. President Sharp, the Climate Crisis Action Plan recommends policies to advance a range of carbon-free electricity generation sources so that different regions and communities can advance solutions that work for them. Could you please explain why it is important for regions and communities to be able to have that choice and prioritize renewable energy if that is what they would prefer?**

Indian Country is a diverse place, each Tribal Nation has unique circumstances that require individualized electricity generation solutions that respect their inherent sovereignty. On top of regional and environmental differences, there are cultural aspects that may render some areas and means of electricity generation not suitable for some Tribal Nations. Federal and state actors must be aware of these factors, while acknowledging and embracing Indian Country as a willing partner in carbon-free electricity generation. Federal, state, and local actors must involve Tribal Nations when planning and developing electricity generation projects and all climate change projects to avoid issues of cultural and community concern.

**6. President Sharp, the Climate Crisis Action Plan recommends a broad suite of technologies to decarbonize the economy, including carbon capture and storage where there is a clear climate benefit. However, in the last year, there has been news coverage of carbon dioxide pipeline leaks sickening vulnerable communities. Link: [https://www.huffpost.com/entry/gassing-satartia-mississippi-co2-pipeline\\_n\\_60ddea9fe4b0ddef8b0dde8f](https://www.huffpost.com/entry/gassing-satartia-mississippi-co2-pipeline_n_60ddea9fe4b0ddef8b0dde8f). Do you agree that the development of carbon capture technologies should also include protections to promote environmental justice?**

Yes, the development of carbon capture technologies should include protections to promote environmental justice. Environmental justice should also be a consideration in the development of policies and approaches to addressing climate change overall to ensure that Tribal Nations are equitably included and appropriately consulted.

**7. President Sharp, can you describe some of the ways the Biden Administration is working to improve Tribal consultation and strengthen relationships with Tribal Nations?**

On January 26, 2021, President Biden signed a Presidential Memorandum titled "Memorandum on Tribal Consultation and Strengthening Nation-to-Nation Relationships," implementing Executive Order 13175, "Consultation and Coordination With Indian Tribal Governments." This memorandum reaffirmed the Obama Administration's commitment and recognition of Tribal self-determination and the federal trust and treaty obligations to Tribal Nations. This year we have seen almost every federal agency host consultations on developing a consultation action plan. Since issuing this Presidential Memorandum, federal agencies have held more than

150 national-level consultation sessions totaling more than 350 hours of government-to-government interaction. With all the comments and feedback provided by Tribal Nations, we are eager to see the results and changes to consultation policies across federal agencies. We are grateful the Biden Administration is taking meaningful steps to be responsive to Tribal needs and aligning federal planning with our values and principles.

THE HONORABLE GARRET GRAVES

**1. President Sharp, you have historically been critical of the American oil and gas industry, saying in our hearing that you want to take big oil down. The Biden Department of Energy just released projections that show a significant increase in global demand for natural gas and oil in every modeled scenario—that is a global reality.**

**a. Given that reality, do you think the best approach to meet this global demand is to shut down production in the United States, including on tribal lands, and cede supply to foreign entities—in particular state-owned enterprises in Russia, Iran, Venezuela, etc.—where lifecycle emissions are up to 50 percent higher than if produced in the United States?**

NCAI supports energy strategies to increase tribal self-determination over natural resources so that the Tribal Nations are able to choose the most suitable avenue of energy development for the benefit of their sovereignty and their citizens. As Indian Country is extremely diverse, this can take many forms, including renewable energy and fossil fuel extraction.

**b. To the extent there is global demand, shouldn't we want that demand to be met by the lowest emission producers, like those in the United States, providing the most environmentally friendly production as well as creating and sustaining domestic jobs, including on tribal lands?**

NCAI supports energy strategies to increase tribal self-determination over natural resources so that the Tribal Nations are able to choose the most suitable avenue of energy development for the benefit of their sovereignty and their citizens. As Indian Country is extremely diverse, this can take many forms, including renewable energy and fossil fuel extraction.

**c. Some renewable energy technologies, such as wind turbines and solar panels, rely on fossil resources for their production and, for wind turbines, in their use. Given your opposition to oil and gas, do you oppose the use of wind or solar energy if oil, gas, or coal was involved in their production or use?**

NCAI does not hold a position for or against any energy resource being used for the development of renewable energy technologies.

**d. Both wind and solar are intermittent resources that today rely on natural gas for backup power. Do you support natural gas as a means to utilize wind and solar today or should we shut down all wind and solar that rely on natural gas until such time that it can be affordably relied upon without natural gas?**

NCAI supports the continued transition to renewable energy sources without interruption of electricity services to Tribal Nations and their citizens.

**2. Chairman Baker has outlined an approach that will depend upon Tribal natural gas resources, utilizing American innovation, and producing affordable carbon free electricity on demand.**

**While there are lifecycle considerations—such as the exposure to slave labor when producing solar panels in China or the mining and uncontrolled coal powered processing of critical minerals in China—when it come to the use in the generation of electricity, can you explain the emissions difference in the electricity generation between the zero-emission natural gas technology that the Chairman Baker's testimony discusses, and the renewable options referenced in Ms. Thomas' testimony?**

The natural gas technology and renewable energy options that Chairman Baker and Pilar Thomas laid out during their testimonies were both valued options for Tribal Nations to consider in their own energy strategies. We defer to their testimony and expertise.

**3. At our hearing you stated that NCAI supports “any Tribal nation’s desire to unlock the energy potential within their own sovereign lands.”**

**a. Do you support the efforts of the Southern Ute Indian Tribe to utilize its resources?**

Yes, NCAI supports Tribal Nations’ choice to explore for their own self-determined energy strategies.

**b. Do you support the Southern Ute exercising their sovereignty to partner with NET Power to develop zero carbon emissions baseload power?**

Yes, NCAI supports energy strategies to increase tribal self-determination over natural resources so that the Tribal Nations can choose the most suitable avenue of energy development for the benefit of their sovereignty and their citizens.

**c. Would you be concerned with efforts from the Federal government to dictate whether or not the Southern Ute can affordably take advantage of their abundant resources—including natural gas—that is developed on their sovereign land?**

NCAI believes that any federal efforts that would limit the exercise of tribal self-determination must be consulted on with Tribal Nations, with free, prior, and informed consent required from the Nations being affected.

**4. I mentioned at the hearing that the Navajo Nation issued a press release following the Biden Administration’s decision on a 20-year ban on oil and gas drilling within a ten-mile radius of the Chaco Canyon Heritage Area. The Navajo Nation’s Speaker, Seth Damon, stated that, “The Biden Administration bypassed previous requests to Congress for field hearings and for leaders to hear directly from our Navajo families affected in the Chaco Canyon region. The position of the Navajo Nation Council is for the creation of a 5-mile buffer within and around this sacred site. It is important that the federal government consider and work with our Navajo allottees to further advance development. The Administration must respect our tribal sovereignty and what the government-to-government relationship entails.”**

**a. Do you support the Biden Administration’s decision even though they ignored specific requests from the Navajo Nation for field hearings and consultation with the Tribe?**

NCAI defers this question to the Navajo Nation out of respect to their Sovereignty.

**b. Have you called on, or will you call on the Biden Administration to reverse its decision and agree to the Navajo Nation’s request before deciding, and base the final decision on what is best for the Navajo Nation?**

NCAI defers this question to the Navajo Nation out of respect to their Sovereignty.

**c. The United States has been the undisputed leader in carbon sequestration innovation. It is vital to look at the science and the facts regarding its viability and the huge global emissions reduction opportunities with successful deployment both here in the U.S. and worldwide. According to the experts, based on the science and the facts, carbon sequestration is safe, proven, and been widely used for decades. The referenced Department of Energy report<sup>1</sup> makes several key points:**

*“The U.S. Department of Energy (DOE) has invested more than \$1 billion during the past two decades through its Carbon Storage Research and Development (R&D) Program to develop the technologies and capabilities for widespread commercial deployment of geologic storage. This investment has made DOE a leader in this worldwide effort.”<sup>2</sup>*

*“CCUS projects supported by DOE and other organizations around the world, which in 2019 injected more than 25 million metric tons*

<sup>1</sup> Ibid.

<sup>2</sup> Ibid.

*of CO<sub>2</sub>, have shown no adverse impacts to human health or the environment. And no DOE supported project has observed migration of CO<sub>2</sub> outside of the intended storage reservoir or confining cap rock.”<sup>3</sup>*

*“The assurances we can make today about the secure storage of CO<sub>2</sub> in deep geologic reservoirs are based on: (1) a foundation of nearly five decades of oil and gas industry experience injecting CO<sub>2</sub> into oil- and gas-filled formations; (2) the 20 years of technology advancements made from R&D programs like DOE’s Carbon Storage Program; (3) field-testing campaigns, such as the Regional Carbon Sequestration partnerships (RCSPs) that have validated monitoring tools and strategies and developed best practices; (4) improved understanding of the physics, chemistry, and mechanics involved throughout the life of a CCUS project.”<sup>4</sup>*

**Given that the United States Department of Energy has worked on energy technologies for decades, spanning multiple administrations of both political parties, do you view them as a qualified expert when it comes carbon capture and sequestration?**

NCAI understands and acknowledges that the Department of Energy has experts in the field of carbon sequestration and capture, and supports their efforts to reach out and collaborate with Indian Country and tribal experts.

#### **Questions for the Record**

**The Honorable Melvin J. Baker  
Chairman  
Southern Ute Indian Tribe**

THE HONORABLE A. DONALD MCEACHIN

**1. When drafting the Environmental Justice for All Act, it was critical that Chairman Grijalva and I get feedback from a variety of stakeholders on the legislation, including from Tribal and Indigenous leaders.**

**As new policies are created, and grants are distributed from the Infrastructure Investment and Jobs Act can you please clarify how you feel the federal government can best ensure meaningful stakeholder engagement, including the types of engagement that would be most helpful?**

Representative McEachin. Thank you for your comments and your work with Chairman Grijalva on behalf of Indian country. The Environmental Justice for All Act, H.R. 2021, is important in ensuring that minority communities do not suffer a disparate impact from environmental hazards. Indian country has historically been a depository by the federal government and others for toxic waste, which has had a devastating impact on Native communities.

At the same time, many Indian tribes—including the Southern Ute Indian Tribe (the Tribe)—rely on prudent natural resource development, including renewable and traditional energy, to fund their government programs and services.

The Infrastructure Investment and Jobs Act, H.R. 3684, is lengthy and complex. Thoroughly engaging with Tribes can be difficult due to a number of factors, including poor or non-existent internet, delays in postal deliveries, and remote locations. In addition, the substance of the legislation can change quickly as it moves through the legislative process, making it hard for Tribes to keep up with critical modifications.

However, as we saw in the recent Supreme Court case of *Yellen v. Confederated Tribes of the Chehalis Reservation*, sloppy drafting can lead to differences in legislative text that can have a major impact on those Native communities that are entitled to federal relief and those that are not. This can cause unnecessary division among Tribes and other Native communities. That is why Tribal engagement at every stage of the legislative process is important. After legislation has passed, we find that Tribes are often unfamiliar with the nature of the programs offered due to the complexity of the legislation, itself.

The following are some suggestions the Tribe feels would be helpful in consulting with Indian country during the legislative process and after the legislation has passed:

<sup>3</sup> Ibid.

<sup>4</sup> Ibid.

The Tribe finds it is helpful to have frank and direct communications with the Committees while legislation is being considered. This has included:

- a. Setting up remote meetings between representatives of the Committees and Tribes to discuss legislation.
- b. Forwarding the legislation to Tribal representatives by email and regular mail to ensure they are aware of the legislation and have an opportunity to provide comments.
- c. Encouraging the Tribe's local representatives to communicate with them on key legislative initiatives that might directly affect them. The Colorado delegation is excellent at communicating with the two Tribes located within the state's borders.

Once the legislation has passed, government agencies vary in their tribal engagement. Some are very proactive. Others less so. Here are some thoughts on what we believe works best:

- a. The White House does a good job of holding meetings with Tribes on legislation that has passed. This is a starting point.
- b. Often governmental agencies will hold a national webinar on legislation that affects Tribes. Again, this is a good starting point. But given the difficulties in communication with Indian communities, it is not enough. Moreover, there is limited opportunity on these calls for questions or comments.
- c. Local engagement is best. Reach out to the Tribes by region or state. Make sure they are aware of the meetings by multiple methods—email, phone and letter. Keep in mind that delivery by mail in Indian country is slower than much of the rest of the country. Add at least a week on the expected delivery date.
- d. Engage with tribal organizations. This includes the National Congress of American Indians but also other groups such as the Tribal In House Counsel Association (TICA).
- e. We often find that with important legislation such as the Infrastructure Investment and Jobs Act, there are so many provisions affecting Indian Country that there can be a degree of "information overload." Notices of funding opportunities come from multiple agencies with consultations at different times. In some cases, applying for one grant at one agency will result in being considered ineligible for another grant at a different agency. There is little or no coordination among government agencies. Having a single meeting discussing all funding opportunities coming out of a single piece of legislation would be helpful.

THE HONORABLE GARRET GRAVES

**1. Chairman Baker, the hearing covered quite a bit of ground and there was limited time to respond to all that was covered. Are there any additional comments that you would like to share with the committee?**

Thank you, Representative Graves, for the opportunity to provide additional comments. We appreciate the opportunity to participate in the hearing "Tribal Voices, Tribal Wisdom: Strategies for the Climate Crisis." We encourage the committee members, participants and other stakeholders to be open to new ideas and technologies that can be part of a potential solution to provide reliable, affordable, and carbon neutral energy to meet our country's needs, irrespective of the source. Due to history, many tribes in the United States and indigenous persons around the world have had to adapt in order to preserve their communities and cultures. The quicker we can open our minds to all possibilities and embrace working together with those who have different views, the quicker we can iterate potential solutions reducing the carbon footprint of human activity in the atmosphere.

America's example is illustrative: in terms of fuel for our homes and industry we have progressed from wood to whale oil, then on to coal, oil and gas. We are in the transition from these traditional energy sources to renewable and other fuel sources.

The support from Congress through renewable tax credits over the past two decades has allowed renewable technology to improve rapidly and for renewable energy supply to grow in the marketplace, becoming an instrumental part of the solution to a carbon neutral energy future. However, it is important for policy makers to acknowledge that all energy sources have an environmental impact and renewables alone will not solve all the energy challenges of the future due to their intermittency. We encourage all stakeholders and decision makers to not take a one-size-fits-all approach to energy sources and to be more open about deployment of new technology associated with all energy types. Different regions in the United States have their own unique characteristics and natural resources, so where solar power may be a good source of energy in one part of the country, it is not practical

in other parts. Our energy policy needs to focus on utilizing the natural resources specific to each region in a responsible and carbon neutral way to meet the energy demands of the future. Fossil fuels have been mined and used for a century to greatly improve socioeconomic conditions for billions of people around the world. If we are open to new technologies, such as NET Power's Allam-Fetvedt power cycle, to generate baseload power to the grid in a carbon neutral way, a critical solution to providing affordable and reliable energy to the grid could be within reach in the next few years.

In considering these options, it is always important to keep tribal sovereignty in mind. Too often we see the federal government imposing requirements on Tribes as it pertains to the energy sector that are actually detrimental to tribal economic growth. Since at least 1970, the Executive Branch and Congress have encouraged self-determination by Indian Tribes with the understanding that Tribes know best how to expand their economic base while controlling the environmental impact. We ask that this Committee keep this in mind while looking at the issue of climate change

**2. The United States has been the undisputed leader in carbon sequestration innovation. It is vital to look at the science and the facts regarding its viability and the huge global emissions reduction opportunities with successful deployment both here in the U.S. and worldwide. According to the experts, based on the science and the facts, carbon sequestration is safe, proven, and been widely used for decades. The referenced Department of Energy report<sup>1</sup> makes several key points:**

*"The U.S. Department of Energy (DOE) has invested more than \$1 billion during the past two decades through its Carbon Storage Research and Development (R&D) Program to develop the technologies and capabilities for widespread commercial deployment of geologic storage. This investment has made DOE a leader in this worldwide effort."*<sup>2</sup>

*"CCUS projects supported by DOE and other organizations around the world, which in 2019 injected more than 25 million metric tons of CO<sub>2</sub>, have shown no adverse impacts to human health or the environment. And no DOE supported project has observed migration of CO<sub>2</sub> outside of the intended storage reservoir or confining cap rock."*<sup>3</sup>

*"The assurances we can make today about the secure storage of CO<sub>2</sub> in deep geologic reservoirs are based on: (1) a foundation of nearly five decades of oil and gas industry experience injecting CO<sub>2</sub> into oil- and gas-filled formations; (2) the 20 years of technology advancements made from R&D programs like DOE's Carbon Storage Program; (3) field-testing campaigns, such as the Regional Carbon Sequestration Partnerships (RCSPs) that have validated monitoring tools and strategies and developed best practices; (4) improved understanding of the physics, chemistry, and mechanics involved throughout the life of a CCUS project."*<sup>4</sup>

**Given that the United States Department of Energy has worked on energy technologies for decades, spanning multiple administrations of both political parties, do you view them as a qualified expert when it comes carbon capture and sequestration?**

The United States is the leader and should be considered the expert in carbon capture, utilization and storage (CCUS) as the U.S. DOE and industry have been working together for decades to understand reservoirs and technology associated with CCUS. CCUS will play a critical role in reducing carbon emissions associated with human activity in the earth's atmosphere through either direct air capture or through deployment of capturing carbon from industrial sources. Regarding sequestration, there are many known geologic sources of high-purity carbon dioxide still producing high-purity carbon dioxide for industrial use today<sup>5</sup> which have stored

<sup>1</sup> Safe Geologic Storage of Captured Carbon Dioxide: Two Decades of Doe's Carbon Storage R&D Program in Review, April 13, 2020 report. [https://www.netl.doe.gov/sites/default/files/Safe%20Geologic%20Storage%20of%20Captured%20Carbon%20Dioxide\\_April%2015%202020\\_FINAL.pdf](https://www.netl.doe.gov/sites/default/files/Safe%20Geologic%20Storage%20of%20Captured%20Carbon%20Dioxide_April%2015%202020_FINAL.pdf)

<sup>2</sup> Ibid.

<sup>3</sup> Ibid.

<sup>4</sup> Ibid.

<sup>5</sup> Supply, Underground Injection, and Geologic Sequestration of Carbon Dioxide, as of August 7, 2021 published by the U.S. Environmental Protection Agency, located at <https://www.epa.gov/ghgreporting/supply-underground-injection-and-geologic-sequestration-carbon-dioxide>

this gas for millions of years and could be used to store anthropogenic sources of carbon dioxide in the future. Furthermore, injection of carbon dioxide in underground reservoirs<sup>6</sup> is a process for which industry has a high level of competency, given the decades of experience in enhanced oil recovery. Hydrocarbons have been removed from the earth for over a century and carbon has been emitted to the atmosphere as a result. Today, we have a better understanding of the impacts of carbon emissions, and we should work together to make every effort possible to minimize carbon emissions associated with human activity including placing the carbon back into the earth where it originally came from.

Finally, I would like to reiterate that solving our future energy challenges in a carbon neutral way is complex and we encourage everyone to keep an open mind and embrace new technology. The United States has consistently been the land of innovation and technological advancements for centuries and I am very optimistic that the U.S. will continue to lead on solving the future energy challenges here and be part of the solution around the world. We look forward to continuing to progress projects and ideas forward with industry, academia, and Congress. Thank you again for the opportunity to testify on this very important and complex subject. Committee members are welcome to visit our Reservation if you are ever in the Four Corners Region.

Respectfully submitted,

Melvin J. Baker, Chairman  
Southern Ute Indian Tribe

#### Questions for the Record

**Dr. Casey Thornbrugh  
Climate Change Program Manager,  
United South and Eastern Tribes, Inc.; and  
Tribal Climate Science Liaison,  
DOI Northeast and Southeast Climate Adaptation Science Centers**

THE HONORABLE KATHY CASTOR

**1. Dr. Thornbrugh, would you agree that to fight the climate crisis and adapt to its unavoidable impacts, all nations around the world must play their part to reduce carbon pollution and invest in resilient infrastructure?**

Yes, and this includes ensuring that Tribal Nations are included in broader plans, dialogue, and legislation, as the U.S. seeks to address the climate crisis. In fulfillment of the trust obligation, the federal government has an inherent responsibility to ensure the protection of the natural and cultural resources that support the health and wellness of Tribal communities, as well as to support Tribal sovereignty and self-determination. Therefore, it is critical that Tribal Nations have access to the necessary resources to address the effects of climate change within our communities.

**2. Dr. Thornbrugh, the Build Back Better Act contains incentives like tax credits for new and used electric vehicles and investments in electric vehicle charging as well as rebates for residential appliance and equipment electrification. Would you agree that these types of investments can help reduce U.S. demand for oil and gas? If other nations, including in Europe, made similar investments, would that help reduce global demand for oil and gas?**

Yes, though we note that electric vehicles generate their own environmental issues, particularly with battery lifecycle management; and vehicle charging stations present concerns, particularly if the energy source is from a coal-fired power plant. This issue is more complex and a suite of actions including reduction in oil and gas demand is needed to avoid unintended consequences. We urge Congress and the Administration to work nationally and internationally to reduce greenhouse gas emissions in order to mitigate the impacts from Climate Change.

<sup>6</sup>Carbon Dioxide Enhanced Oil Recovery: Untapped Domestic Energy Supply and Long-Term Carbon Storage Solution, March 2010 report published by National Energy Technology Laboratory U.S. Department of Energy, located at [https://www.netl.doe.gov/sites/default/files/netl-file/co2\\_eor\\_primer.pdf](https://www.netl.doe.gov/sites/default/files/netl-file/co2_eor_primer.pdf)

THE HONORABLE GARRET GRAVES

**1. Clearly from your testimony you are concerned with global emissions. From a pure scientific standpoint and from a global emissions perspective, is there any difference between a ton of CO<sub>2</sub> emitted from China versus a ton of CO<sub>2</sub> from the U.S?**

It is critically important that all nations, including the United States and China, work to reduce emissions globally in order to mitigate Climate Change impacts.

**2. We know from a 2019 study by the Department of Energy's national labs that U.S. LNG exports to Europe have a 41% lower emissions profile than Russia natural gas to Europe. We know from what President Biden's own Department of Energy said last month, that there isn't a single scenario where demand for natural gas doesn't go up over the next 30 years.**

**From the standpoint of global emissions, who would be best to supply that natural gas—U.S. LNG or Russian gas that comes with at least 41% higher emissions?**

While the United South and Eastern Tribes Sovereignty Protection Fund does not have a position on domestic energy production outside of Indian Country, such as natural gas pipelines, we in the strongest possible terms insist that any expansion of this infrastructure in the United States requires Tribal consultation and the avoidance of any impacts to Tribal sovereignty, sacred sites, or public health.

Further, USET/USSET SPF member Tribal Nations, and those respective Tribal lands and energy resources, are located within a large region that presents diverse geographical environments and opportunities for both conventional and renewable energy development. Our member Tribal Nations could benefit from the unlocked potential of those energy resources and realize energy development goals, through appropriate Congressional action and investment in Indian Country; and further actions by the Administration, particularly to promote balanced geographical representation and inclusion of USET SPF member Tribal Nations in energy programs.

USET SPF has established its energy priorities, as follows:

- ✓ Tribal self-determination and control of natural resources and energy assets, to make conservation and development decisions to preserve Tribal sovereignty, protect Tribal assets, and to achieve economic independence, creation of jobs, and improvement of Tribal members' standard of living.
- ✓ Tribal capacity building effort involving multiple federal agencies, universities, and the private sector.
- ✓ Reform core federal programs, expertise, and funding to support Tribal energy resource development and market access.
- ✓ Remove barriers to the deployment of Tribal energy resources, such as bureaucratic processes, insufficient access to financial incentives, and interconnection and transmission on power grid.

THE HONORABLE A. DONALD MCEACHIN

**1. When drafting the Environmental Justice for All Act, it was critical that Chairman Grijalva and I get feedback from a variety of stakeholders on the legislation, including from Tribal and Indigenous leaders.**

**As new policies are created, and grants are distributed from the Infrastructure Investment and Jobs Act can you please clarify how you feel the federal government can best ensure meaningful stakeholder engagement, including the types of engagement that would be most helpful?**

As the federal government works to implement the Infrastructure Investment and Jobs Act (IIJA), it is critical to understand that Tribal Nations are not merely stakeholders. Our relationship with the United States is political, and its accordant responsibilities are unique, separate from, and supersede any responsibilities the federal government has to other communities. As such, meaningful Tribal consultation must occur as new policies are created and funding is distributed. Meaningful Tribal consultation involves seeking guidance and input from Tribal Nations, and then implementing that guidance in the administration of IIJA. As the IIJA is implemented, federal trust and treaty obligations should be paramount. Tribal sovereignty should be honored fully, especially regarding decisions about climate-friendly and other development on our homelands. In distributing funds to Tribal Nations under IIJA, the federal government should focus on the following:

- Rapid, equitable deployment of funds using existing funding mechanisms, including Indian Self-Determination and Education Assistance Act (ISDEAA)

contracts and compacts, and avoiding competitive grants or matching requirements;

- Affording Tribal Nations maximum flexibility in the use of all funding allocated under IIJA; and
- Ensuring Tribal Nations are not subject to burdensome administrative requirements for use of these funds. This includes application, reporting, audit, or other types of compliance requirements.

### Questions for the Record

**Pilar Thomas**

**Partner, Energy, Environment & Natural Resources Practice Group**

**Quarles & Brady LLP**

THE HONORABLE KATHY CASTOR

**1. Ms. Thomas, can you describe some of the ways the Biden Administration is working to improve Tribal consultation and strengthen relationships with Tribal Nations?**

On January 26, 2021, President Biden issued a Presidential Memorandum on Tribal Consultation and Strengthening Nation to Nation Relationships.<sup>1</sup> The Presidential Memorandum requires the federal agencies (but not the independent agencies) to revisit, review and revise their tribal consultation policies, and to provide regular reporting to the Office of Management and Budget on tribal consultation policies and efforts. In response to this Memorandum, the federal agencies engaged tribes through consultation to provide input and feedback on current federal tribal consultation policies, including, for the first time the Office of Management and Budget.<sup>2</sup>

In addition, as announced at the White House Tribal Nations Conference, several executive agency initiatives to promote consultation and nation to nation relationships include the Joint Secretarial Order with the USDA and DOI regarding tribal participation in federal land management decisions<sup>3</sup> and an Memorandum of Understanding between multiple federal agencies related to protection of treaty rights and sacred sites.<sup>4</sup>

Several federal agencies, including Interior, EPA and USDA, have initiated consultation on major agency actions—such as EPA’s review of regulations related to the Clean Water Act and Clean Air Act; Interior’s implementation of the Infrastructure Investment and Jobs Act; and USDA tribal food sovereignty and related initiatives. These efforts are re-invigorating the federal-tribal relationship and promoting more involvement and collaboration in implementing federal programs. However, there are still some major gaps in consultation efforts, especially for the Bi-partisan Infrastructure Bill, including lack of consultation sessions scheduled for Department of Energy and Department of Transportation.

**2. Ms. Thomas, do you believe that technologies like grid-scale storage and demand response can help achieve a more flexible grid that can integrate higher levels of renewable energy as we phase out unabated fossil fuel-fired electricity generation?**

While this is a highly technical technology issue, grid operators are developing the tools and technologies to address this aspect of grid management. Grid-scale storage and demand response will only go so far though. Demand response is especially challenging given the very diffuse use of power—it is almost irrelevant, for example, in the residential sector.<sup>5</sup> It is also more challenging as more distributed energy resources are deployed through community scale projects, rooftop solar, and other distribution system level energy generation systems such as microgrids.<sup>6</sup>

<sup>1</sup> <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/26/memorandum-on-tribal-consultation-and-strengthening-nation-to-nation-relationships/>

<sup>2</sup> <https://www.whitehouse.gov/omb/tribal-consultation/>

<sup>3</sup> <https://www.doi.gov/sites/doi.gov/files/elips/documents/so-3403-joint-secretarial-order-on-fulfilling-the-trust-responsibility-to-indian-tribes-in-the-stewardship-of-federal-lands-and-waters.pdf>

<sup>4</sup> <https://www.doi.gov/sites/doi.gov/files/mou-interagency-coordination-and-collaboration-for-the-protection-of-indigenous-sacred-sites-11-16-2021.pdf>

<sup>5</sup> Although technology improvements, such as smart meters, programmable thermostats and appliances that can communicate with the utility, are creating increasing opportunities for utility-internal demand side management programs. <https://www.utilitydive.com/news/welcoming-the-next-generation-residential-demand-response-30/551947/>

<sup>6</sup> <https://www.woodmac.com/news/opinion/time-resi-demand-response-shine-summer-2020/>

Furthermore, while demand response is helpful for addressing peak demand issues, it is not typically used for firming or dispatching power. In that regard, other clean energy technologies that generate firm and/or dispatchable power can also provide grid services to create flexibility and integration support—such as geothermal, waste-to-energy, and other renewable fuels (like landfill gas).

**3. Ms. Thomas, should Congress explore strategies to reduce the carbon footprint of the manufacturing of climate solutions like wind and solar energy while supporting the transition to a clean energy economy?**

I'm not entirely clear on the question. I interpret it to mean are there strategies or mechanisms related to the reduction of the carbon footprint of the manufacturing of wind turbines or solar panels. If this is the correct interpretation, then my response is—Yes, Congress should explore such strategies. For example, President Biden and members of Congress have promoted the “on-shoring” of the clean energy supply chain. This supply chain includes mining, manufacturing, and assembling the materials needed for clean energy projects (batteries, solar panels, wind turbines). While this discussion has occurred in the context of creating new jobs in the U.S., moving manufacturing and assembly closer to the location of projects will necessarily reduce the carbon footprint—through reduced transportation carbon emissions. One such strategy might be to provide additional federal incentives to manufacturers that locate on Indian lands—since those lands are likely to be closer to large utility scale solar and wind projects.

